

CHAPTER 1

GENERAL INFORMATION

This chapter provides input to assist an Aviation Medical Examiners (AME), otherwise known as an Examiner, in performing his or her duties in an efficient and effective manner. It also describes Examiner responsibilities as the Federal Aviation Administration's (FAA) representative in medical certification matters and as the link between airmen and the FAA.

1. Legal Responsibilities Of Designated Aviation Medical Examiners

Title 49, United States Code (U.S.C.) (Transportation), sections 109(9), 40113(a), 4701-44703, and 44709 (1994) formerly codified in the Federal Aviation Act of 1958, as amended, authorizes the FAA Administrator to delegate to qualified private persons; i.e. designated Examiners, matters related to the examination, testing, and inspection necessary to issue a certificate under the U.S.C. and to issue the certificate. Designated Examiners are delegated the Administrator's authority to examine applicants for airman medical certificates and to issue or deny issuance of certificates.

Approximately 450,000 applications for airman medical certification are received and processed each year. The vast majority of medical examinations conducted in connection with these applications are performed by physicians in private practice who have been designated to represent the FAA for this purpose. An Examiner is a designated representative of the FAA Administrator with important duties and responsibilities. It is essential that Examiners recognize the responsibility associated with their appointment.

The consequences of a negligent or wrongful certification, which would permit an unqualified person to take the controls of an aircraft, can be serious for the public, for the Government, and for the Examiner. If the examination is cursory and the Examiner fails to find a disqualifying defect that should have been discovered in the course of a thorough and careful examination, a safety hazard may be created and the Examiner may bear the responsibility for the results of such action.

Of equal concern is the situation in which an Examiner deliberately fails to report a disqualifying condition either observed in the course of the examination or otherwise known to exist. In this situation, both the applicant and the Examiner in completing the application and medical report form, may be found to have committed a violation of Federal criminal law which provides that -

"Whoever in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up by any trick, scheme, or device a material fact, or who makes any false, fictitious or fraudulent

statements or representations, or entry, may be fined up to \$250,000 or imprisoned not more than 5 years, or both" (Title 18 U.S. Code. Secs. 1001; 3571).

Cases of falsification may be subject to criminal prosecution by the Department of Justice. This is true whether the false statement is made by the applicant, the Examiner, or both. In view of the pressures sometimes placed on Examiners by their regular patients to ignore a disqualifying physical defect that the physician knows to exist, it is important that all Examiners be aware of possible consequences of such conduct.

In addition, when an airman has been issued a medical certificate that should not have been issued, it is frequently necessary for the FAA to begin a legal revocation or suspension action to recover the certificate. This procedure is time consuming and costly. Furthermore, until the legal process is completed, the airman may continue to exercise the privileges of the certificate, thereby compromising aviation safety.

2. Authority of Aviation Medical Examiners

The Examiner is delegated authority to:

- Examine applicants for, and holders of, airman medical certificates to determine whether or not they meet the medical standards for the issuance of an airman medical certificate
- Issue or deny airman medical certificates to applicants or holders of such certificates based upon whether or not they meet the applicable medical standards. The medical standards are found in Title 14 of the Code of Federal Regulations, part 67. (See Appendix A).

A medical certificate issued by an Examiner is considered to be affirmed as issued unless, within 60 days after date of issuance (date of examination), it is reversed by the Federal Air Surgeon, a RFS, or the Manager, AMCD. However, if the FAA requests additional information from the applicant within 60 days after the issuance, the above-named officials have 60 days after receipt of the additional information to reverse the issuance.

3. Equipment Requirements

For the conduct of the medical examination, AME's shall have adequate facilities for performing the required examinations and possess or agree to obtain the following equipment prior to conducting any FAA examinations. History or current findings may indicate a need for special evaluations.

1. Standard Snellen Test. Types for visual acuity (both near and distant) and appropriate eye lane. FAA Form 8500-1, Near Vision Acuity Test Card may be used for near and intermediate vision testing. Metal, opaque plastic or cardboard occluder.

2. Eye Muscle Test-Light. May be a spot of light 0.5cm in diameter, a regular muscle-test light, or an ophthalmoscope.
3. Maddox Rod. May be hand type.
4. Horizontal Prism Bar. Risley, Hughes, or hand prism are acceptable alternatives.
5. Color Vision Test Apparatus. Pseudoisochromatic plates, (American Optical Company (AOC), 1965 edition; AOC-HRR, 2nd edition); Dvorine, 2nd edition; Ishihara, Concise 14 -, 24 -; or 38-plate editions; or Richmond (1983 edition, 15-plates). Acceptable substitutes are: Farnsworth Lantern; Keystone Orthoscope; Keystone Telebinocular; LKC Technologies, Inc., Apt-5 Color Vision Tester; OPTEC 2000 Vision Tester (Models 2000PAME, and 2000OPI); Titmus Vision Tester; Titmus II Vision Tester (Model Nos. TII and TIIS); and Titmus 2 Vision Tester (Models T2A and T2S).
6. A Wall Target consisting of a 50-inch square surface with a matte finish (may be black felt or dull finish paper) and a 2-mm white test object (may be a pin) in a suitable handle of the same color as the background.
7. Other vision test equipment that is acceptable as a replacement for 1 through 4 above includes the American Optical Company Site-Screener, Bausch and Lomb Orthorator, Keystone Orthoscope or Telebinocular, Titmus Vision Tester, or Stereo Optical Co. OPTEC 2000 VISION TESTER.
8. Standard physician diagnostic instruments and aids including those necessary to perform urinalysis.
9. Electrocardiographic equipment. Senior Aviation Medical Examiners must have access to digital electrocardiographic equipment with electronic transmission capability.
10. Audiometric equipment. All Aviation Medical Examiners must have access to audiometric equipment or a capability of referring applicants to other medical facilities for audiometric testing.

4. Medical Certification Decision Making and AME Assisted Special Issuance (AASI)

A. After reviewing the medical history and completing the examination, Examiners must:

- Issue a medical certificate,
- Deny the application, or
- Defer the action to the Manager, AMCD, AAM-300, or the appropriate RFS

Examiners may issue a medical certificate only if the applicant meets all medical standards, including those pertaining to medical history unless otherwise authorized by the FAA.

Examiners may not issue a medical certificate if the applicant fails to meet specified minimum standards or demonstrates any of the findings or diagnoses described in this Guide as "disqualifying" unless the condition is unchanged or improved and the applicant presents written documentation that the FAA has evaluated the condition, found the applicant eligible for certification, and authorized Examiners to issue certificates.

The Examiner must be aware that an established medical history or clinical diagnosis of any of the following is specifically disqualifying:

- Angina Pectoris;
- Bipolar Disorder;
- Cardiac Valve Replacement;
- Coronary Heart Disease that has required treatment or, if untreated, that has been symptomatic or clinically significant;
- Diabetes Mellitus requiring insulin or other hypoglycemic medication;
- Disturbance of consciousness without satisfactory medical explanation of the cause;
- Epilepsy;
- Heart Replacement;
- Myocardial Infarction;

- Permanent Cardiac Pacemaker;
- Personality Disorder that is severe enough to have repeatedly manifested itself by overt acts;
- Psychosis;
- Substance Abuse and Dependence; and
- Transient loss of control of nervous system function(s) without satisfactory medical explanation of cause

An applicant who is medically disqualified for any reason may be considered by the FAA for an Authorization for Special Issuance of a Medical Certificate (Authorization). For medical defects, which are static or nonprogressive in nature, a Statement of Demonstrated Ability (SODA), may be granted in lieu of an Authorization.

The Examiner always may defer the application to the FAA for action. In the interests of the applicant and of a responsive certification system, however, deferral is appropriate only if the standards are not met; if there is an unresolved question about the history, the findings, the standards, or agency policy; if the examination is incomplete; if further evaluation is necessary; or, if directed by the FAA.

The Examiner may deny certification only when the applicant clearly does not meet the standards.

B. AME Assisted Special Issuance (AASI)

This edition of the Guide for Aviation Medical Examiners introduces the AME Assisted Special Issuance (AASI) process.

The format of the Guide establishes tables in Chapter 3 for Items 25 - 48 (FAA Form 8500-8). The PROTOCOL section of the aeromedical decisions tables identifies the information required by the Agency to determine the eligibility of the applicant to be medically certificated. References to specific medical tests or procedures should be coordinated through the applicant's treating physician(s). At times, an applicant may not have an established treating physician and the Examiner may elect to fulfill this role. You must consider your responsibilities in your capacity as an Examiner as well as the potential conflicts that may arise when performing in this dual capacity.

If this is a first time issuance for a disqualifying disease/condition and the applicant has all of the requisite medical information necessary for a determination, the Examiner must defer, and submit all of the documentation to the AMCD or contact the RFS.

For third-class applicants, the Guide refers to a number of selected medical conditions that are initially disqualifying and must be deferred to the AMCD or RFS. Following the granting of an Authorization for Special Issuance of a Medical Certificate (Authorization) by the AMCD or RFS's office, the AASI process allows the Examiner to re-issue airman medical certificates provided the applicant meets the disease/condition certification criteria.

5. Privacy of Medical Information

A. Within the FAA, access to an individual's medical information is strictly on a "need-to-know" basis. The safeguards of the Privacy Act apply to the application for airman medical certification and to other medical files in the FAA's possession. The FAA does not release medical information without an order from a court of competent jurisdiction, written permission from the individual to whom it applies, or, with the individual's knowledge, during litigation of matters related to certification. The FAA does, however, on request, disclose the fact that an individual holds an airman medical certificate and its class, and it may provide medical information regarding a pilot involved in an accident to the National Transportation Safety Board (NTSB) (or to a physician of the appropriate medical discipline who is retained by the NTSB) for use in aircraft accident investigation.

The Examiner, as a representative of the FAA, should treat the applicant's medical certification information in accordance with the requirements of the Privacy Act. Therefore, information should not be released without the written consent of the applicant or an order from a court of competent jurisdiction. In order to ensure that release of information is proper, whenever a court order or subpoena is received by the Examiner, the appropriate RFS (see Appendix C), or the AMCD, AAM-300 (see address below), should be contacted. Similarly, unless the applicant's written consent for release is of a routine nature; e.g., accompanying a standard insurance company request, advice should be sought from the FAA before releasing any information. In all cases, copies of all released information should be retained.

B. Health Insurance Portability and Accountability Act of 1996 (HIPAA) and Examiner's activities for the FAA. This Act provides specific patient protections and depending upon an Examiner's activation and practice patterns, you may have to comply with additional requirements.

Please see the *Federal Air Surgeon's Medical Bulletin • Spring 2003* for information regarding the Act. You may access this Bulletin using the following URL:

<http://www.cami.jccbi.gov/AAM-400a/FASMB/FAS200301/hipaa.htm>

6. Release of Information

Except in compliance with an order of a court of competent jurisdiction, or upon an applicant's written request, Examiners will not divulge or release copies of any reports prepared in connection with the examination to anyone other than the applicant or the FAA. A copy of the examination may be released to the applicant upon request. Upon receipt of a court subpoena or order, the Examiner shall notify the appropriate RFS. Other requests for information will be referred to:

MANAGER
AEROSPACE MEDICAL CERTIFICATION DIVISION, AAM-300
CIVIL AEROMEDICAL INSTITUTE
FEDERAL AVIATION ADMINISTRATION
POST OFFICE BOX 26800
OKLAHOMA CITY, OK 73125-0080

7. No "Alternate" Examiners Designated

The Examiner is to conduct all medical examinations at their designated address. An Examiner *is not permitted* to conduct examinations at a temporary address and is not permitted to name an alternate Examiner. During an Examiner's absence from the permanent office, applicants for airman medical certification shall be referred to another Examiner in the area.

8. Who May Be Certified

a. Age Requirements

There is no age restriction or aviation experience requirements for medical certification. Any applicant who qualifies medically may be issued a Medical Certificate, FAA Form 8500-9 (white), regardless of age. Examiners also have been delegated authority to issue the combined Medical Certificate and Student Pilot Certificate, FAA Form 8420-2 (yellow), which is age restricted because it is an airman medical and student pilot certificate (student license and medical certificate). For issuance of the combined certificate, the applicant must have reached his or her 16th birthday.

Minimum age requirements for the various airman certificates (i.e., pilot license certificates) are defined in 14 CFR part 61, Certification: Pilots and Flight Instructors, and Ground Inspectors as follows:

- (1) *Airline transport pilot (ATP) certificate*: 23 years
- (2) *Commercial pilot certificate*: 18 years
- (3) *Private pilot certificate*: powered aircraft — 17 years; gliders and balloons — 16 years

- (4) *Student pilot certificate*: powered aircraft — 16 years; gliders and balloons — 14 years

b. Language Requirements

An applicant for an Airman Medical and Student Pilot Certificate must be able to read, speak, write, and understand the English language.

If the Examiner believes that an applicant applying for a Medical Certificate and Student Pilot Certificate, FAA Form 8420-2 (yellow), cannot read, speak, write, and understand the English language, the applicant shall be referred to the nearest Flight Standards District Office (FSDO) for a determination of eligibility for the Student Pilot Certificate. (See Appendix E for FSDO addresses).

Under these circumstances, the Examiner may issue only a Medical Certificate, FAA Form 8500-9 (white), and the applicant must present that certificate to the FSDO when applying for a Student Pilot Certificate.

9. Classes Of Medical Certificates

The class of airman medical certificate for which an individual applies will be issued if the applicant meets required medical standards. It is required that the applicant hold a medical certificate of a class appropriate to the airman privileges exercised. For example, an airman who holds an airline transport pilot (ATP) certificate may pilot aircraft while holding only a third-class medical certificate as long as flying activities are limited to those authorized for *private pilots*. Also, an applicant need not hold an ATP airman certificate to be eligible for a first-class medical certificate.

Listed below are the three classes of airman medical certificates, identifying the categories of airmen certificates applicable to each class.

First-Class - Airline Transport Pilot.

Second-Class - Commercial Pilot; Flight Engineer; Flight Navigator; or Air Traffic Control Tower Operator. (Note: This category of air traffic controller does not include FAA employee air traffic control specialists).

Third-Class - Private Pilot, Recreational Pilot, or Student Pilot.

Glider and Free Balloon Pilots are not required to hold a medical certificate of any class. To be issued Glider or Free Balloon Airman Certificates, the applicant must certify that he or she has no known physical defect that makes him or her unable to pilot a glider or free balloon. This certification is made at the local FAA Flight Standards District Office.

10. Validity of Medical Certificates

A. First-Class Medical Certificate: A first-class medical certificate is valid for the remainder of the month of issue; plus

6-calendar months for activities requiring a first-class medical certificate, or plus

12-calendar months for activities requiring a second-class medical certificate, or plus

24-calendar months for activities requiring a third-class medical certificate, or plus

36-calendar months for activities requiring a third-class medical certificate if the airman has not reached his or her 40th birthday on or before the date of examination.*

B. Second-Class Medical Certificate: A second-class medical certificate is valid for the remainder of the month of issue; plus

12-calendar months for activities requiring a second-class medical certificate, or plus

24-calendar months for activities requiring a third-class medical certificate, or plus

36-calendar months for activities requiring a third-class medical certificate if the airman has not reached his or her 40th birthday on or before the date of examination.*

C. Third-Class Medical Certificate: A third-class medical certificate is valid for the remainder of the month of issue; plus

24-calendar months for activities requiring a third-class medical certificate, or plus

36-calendar months for activities requiring a third-class medical certificate if the airman has not reached his or her 40th birthday on or before the date of examination.*

Each medical certificate must bear the same date as the date of medical examination regardless of the date the certificate is actually issued.

***NOTE: Flight Outside the Airspace of the United States of America (U.S.A.)--a pilot who is issued a medical certificate under the age of 40 may not exercise the privileges of a private pilot certificate outside the U.S.A. after the 24 months of validity of that medical certificate except as permitted by a foreign country(s) where the flight occurs. The maximum validity of a private pilot medical certificate is 24 months under the standards of the International Civil Aviation Organization.**

11. Title 14 CFR § 61.53, Prohibition On Operations During Medical Deficiency

(a) Operations that require a medical certificate. Except as provided in paragraph (b) of this section, a person who holds a current medical certificate issued under part 67 of this chapter shall not act as pilot in command, or in any other capacity as a required pilot flight crewmember, while that person:

(1) Knows or has reason to know of any medical condition that would make the person unable to meet the requirements for the medical certificate necessary for the pilot operation; or

(2) Is taking medication or receiving other treatment for a medical condition that results in the person being unable to meet the requirements for the medical certificate necessary for the pilot operation

(b) Operations that do not require a medical certificate. For operations provided for in § 61.23(b) of this part, a person shall not act as pilot in command, or in any other capacity as a required pilot flight crewmember, while that person knows or has reason to know of any medical condition that would make the person unable to operate the aircraft in a safe manner.

12. Reexamination of an Airman

A medical certificate holder may be required to undergo a reexamination at any time if, in the opinion of the Federal Air Surgeon or authorized representative within the FAA, there is a reasonable basis to question the airman's ability to meet the medical standards. An Examiner may **NOT** order such reexamination.

13. Examination Fees

The FAA does not establish fees to be charged by Examiners for the medical examination of persons applying for airman medical certification. It is recommended that the fee be the usual and customary fee established by other physicians in the same general locality for similar services.

14. Replacement of Medical Certificates

Medical certificates that are lost or accidentally destroyed may be replaced upon proper application provided such certificates have not expired. The request should be sent to:

FOIA DESK
AEROSPACE MEDICAL CERTIFICATION DIVISION, AAM-331
FEDERAL AVIATION ADMINISTRATION
CIVIL AEROSPACE MEDICAL INSTITUTE
POST OFFICE BOX 26800
OKLAHOMA CITY, OK 73125-9914

The airman's request for replacement must be accompanied by a remittance of two dollars (\$2) (check or money order) made payable to the FAA. This request must include:

- The airman's full name and date of birth;
- The class of certificate;
- The place and date of examination;
- The name of the Examiner; and
- The circumstances of the loss or destruction of the original certificate.

The replacement certificate will be prepared in the same manner as the missing certificate and will bear the same date of examination regardless of when it is issued.

In an emergency, contact your RFS or the Manager, AMCD, AAM-300, at above address or by facsimile at 405-954-4300 for certification verification **only**.

15. Disposition of Applications and Medical Examinations

All **completed** applications and medical examinations, unless otherwise directed by the FAA, **must** be transmitted electronically within 14 days after completion to the AMCD.

In addition, the FAA/Original Copy **must** be mailed to:

MANAGER
AEROSPACE MEDICAL CERTIFICATION DIVISION, AAM-300
CIVIL AEROSPACE MEDICAL INSTITUTE
FEDERAL AVIATION ADMINISTRATION
POST OFFICE BOX 26080
OKLAHOMA CITY, OK 73125-0080

These may be batch mailed at monthly intervals. All **incomplete** applications and medical examinations **must** be mailed immediately to the above address.

The AME Work Copy **must** be retained by the AME as their file copy for at least 3 years unless exceeded by state law requirements where the AME is licensed and performed the examination.

The Applicant's Copy of the FAA Form 8500-8 (last page) must be given to the applicant along with the information for Applicant and the instruction sheet.

Examiners not required to use the AMCS; e.g., International AME's, **must** forward the typed, completed FAA/Original Copy to the above address.

16. Protection and Destruction of Forms

Examiners are cautioned to provide adequate security for blank medical application and certificate forms to ensure that they do not become available for illegal use. When the FAA issues new or revised medical forms and certificates, the FAA will advise Examiners of the disposition of the old forms and certificates. The serial numbers of FAA Form 8500-8 assigned to each Examiner are recorded at the Civil Aerospace Medical Institute in Oklahoma City. If asked, the Examiner should be prepared to account for the forms. The Examiners are responsible making provisions to return of all unused FAA forms at such time they leave (resign, retire, terminated or death) the AME Program. **Forms should not be shared with other Examiners.**

17. Questions or Requests for Assistance

When an Examiner has a question or needs assistance in carrying out responsibilities, the Examiner should contact one of the following individuals:

a. Regional Flight Surgeon (RFS) (Names, addresses, and telephone numbers of RFS's are provided in Appendix C).

- Questions pertaining to problem medical certification cases in which the RFS has initiated action.

- Telephone interpretation of medical standards or policies involving an individual airman whom the Examiner is examining.
- Matters regarding designation and redesignation of Examiners and the Aviation Medical Examiner Program.
- Attendance at Aviation Medical Examiner Seminars.

b. Manager, AMCD, AAM-300

- Inquiries concerning guidance on problem medical certification cases.
- Information concerning the overall airman medical certification program.
- Matters involving FAA medical certification of military personnel.
- Information concerning medical certification of applicants in foreign countries.

These inquiries should be made to:

MANAGER
AEROSPACE MEDICAL CERTIFICATION DIVISION, AAM-300
CIVIL AEROSPACE MEDICAL INSTITUTE
FEDERAL AVIATION ADMINISTRATION
POST OFFICE BOX 26080
OKLAHOMA CITY, OK 73125

c. Manager, Aeromedical Education Division, AAM-400

- Matters regarding designation and redesignation of International Examiners, military facilities, and military Examiners.
- Requests for medical forms and stationery.
- Requests for airman medical educational material.

These inquiries should be made to:

MANAGER
AEROSPACE MEDICAL EDUCATION DIVISION, AAM-400
CIVIL AEROSPACE MEDICAL INSTITUTE
FEDERAL AVIATION ADMINISTRATION
POST OFFICE BOX 25082
OKLAHOMA CITY, OK 73125-0082

18. Airman Appeals

a. Request for Reconsideration

An Examiner's denial of a medical certificate is not a final FAA denial. An applicant may ask for reconsideration of an Examiner's denial by submitting a request in writing to:

FEDERAL AIR SURGEON
ATTN: MANAGER,
AEROSPACE MEDICAL CERTIFICATION DIVISION, AAM-300
CIVIL AEROSPACE MEDICAL INSTITUTE
FEDERAL AVIATION ADMINISTRATION
POST OFFICE BOX 26200
OKLAHOMA CITY, OK 73125-0080

The Manager, AMCD will provide initial reconsideration. Some cases may be referred to the appropriate RFS for action. If the Manager, AMCD or a RFS finds that the applicant is not qualified, the applicant is denied and advised of further reconsideration and appeal procedures. These may include reconsideration by the Federal Air Surgeon and/or petition for NTSB review.

b. Authorization for Special Issuance of a Medical Certificate (Authorization)

At the discretion of the Federal Air Surgeon, an Authorization for Special Issuance of a Medical Certificate (Authorization), valid for a specified period, may be granted to a person who does not meet the established medical standards if the person shows to the satisfaction of the Federal Air Surgeon that the duties authorized by the class of medical certificate applied for can be performed without endangering public safety during the period in which the Authorization would be in force. The Federal Air Surgeon may authorize a special medical flight test, practical test, or medical evaluation for this purpose. A medical certificate of the appropriate class may be issued to a person who fails to meet one or more of the established medical standards if that person possesses a valid Authorization and is otherwise eligible. An airman medical certificate issued in accordance with the special issuance section of part 67 (14 CFR 67.401), shall expire no later than the end of the validity period or upon the withdrawal of the Authorization upon which it is based. An airman must again show to the satisfaction of the Federal Air Surgeon that the duties authorized by the class of medical certificate applied for can be performed without endangering public safety in order to obtain a new medical certificate and/or Re-Authorization.

In granting an Authorization, the Federal Air Surgeon may consider the person's operational experience and any medical facts that may affect the ability of the person to perform airman duties including:

- The factors leading to and surrounding the episode
- The prognosis derived from professional consideration of all available information regarding the person.
- The combined effect on the person of failing to meet one or more than one requirement of part 67

In granting an Authorization, the Federal Air Surgeon specifies the class of medical certificate authorized to be issued and may do any or all of the following:

- Limit the duration of an Authorization;
- Condition the granting of a new Authorization on the results of subsequent medical tests, examinations, or evaluations;
- State on the Authorization, and any medical certificate based upon it, any operational limitation needed for safety; or
- Condition the continued effect of an Authorization, and any second- or third-class medical certificate based upon it, on compliance with a statement of functional limitations issued to the person in coordination with the Director of Flight Standards or the Director's designee.
- In determining whether an Authorization should be granted to an applicant for a third-class medical certificate, the Federal Air Surgeon considers the freedom of an airman, exercising the privileges of a private pilot certificate, to accept reasonable risks to his or her person and property that are not acceptable in the exercise of commercial or airline transport pilot privileges, and, at the same time, considers the need to protect the safety of persons and property in other aircraft and on the ground.

An Authorization granted to a person who does not meet the applicable medical standards of part 67 may be withdrawn, at the discretion of the Federal Air Surgeon, at any time if:

- There is adverse change in the holder's medical condition;
- The holder fails to comply with a statement of functional limitations or operational limitations issued as a condition of certification under the special issuance section of part 67 (14 CFR 67.401);

- Public safety would be endangered by the holder's exercise of airman privileges;
- The holder fails to provide medical information reasonably needed by the Federal Air Surgeon for certification under the special issuance section of part 67 (14 CFR 67.401); or
- The holder makes or causes to be made a statement or entry that is the basis for withdrawal of an Authorization under the falsification section of part 67 (14 CFR 67.403).

A person who has been granted an Authorization under the special issuance section of part 67 (14 CFR 67.401), based on a special medical flight or practical test, need not take the test again during later medical examinations unless the Federal Air Surgeon determines or has reason to believe that the physical deficiency has or may have degraded to a degree to require another special medical flight test or practical test.

The authority of the Federal Air Surgeon under the special issuance section of part 67 (14 CFR 67.401) is also exercised by the Manager, AMCD, and each RFS.

If an Authorization is withdrawn at any time, the following procedures apply:

- The holder of the Authorization will be served a letter of withdrawal, stating the reason for the action;
- By not later than 60 days after the service of the letter of withdrawal, the holder of the Authorization may request, in writing, that the Federal Air Surgeon provide for review of the decision to withdraw. The request for review may be accompanied by supporting medical evidence;
- Within 60 days of receipt of a request for review, a written final decision either affirming or reversing the decision to withdraw will be issued; and
- A medical certificate rendered invalid pursuant to a withdrawal, in accordance with the special issuance section of part 67 (14 CFR 67.401) shall be surrendered to the Administrator upon request.

c. Statement of Demonstrated Ability (SODA)

At the discretion of the Federal Air Surgeon, a Statement of Demonstrated Ability (SODA), may be granted, instead of an Authorization, to a person whose disqualifying condition is static or nonprogressive and who has been found capable of performing airman duties without endangering public safety. A SODA does not expire and authorizes a designated Examiner to issue a medical certificate of a specified class if the Examiner finds that the condition described on the SODA has not adversely changed.

In granting a SODA, the Federal Air Surgeon may consider the person's operational experience and any medical facts that may affect the ability of the person to perform airman duties including:

The combined effect on the person of failure to meet more than one requirement of part 67; and

- The prognosis derived from professional consideration of all available information regarding the person.

In granting a SODA under the special issuance section of part 67 (14 CFR 67.401), the Federal Air Surgeon specifies the class of medical certificate authorized to be issued and may do any of the following:

- State on the SODA, and on any medical certificate based upon it, any operational limitation needed for safety; or
- Condition the continued effect of a SODA, and any second- or third-class medical certificate based upon it, on compliance with a statement of functional limitations issued to the person in coordination with the Director of Flight Standards or the Director's designee.
- In determining whether a SODA should be granted to an applicant for a third-class medical certificate, the Federal Air Surgeon considers the freedom of an airman, exercising the privileges of a private pilot certificate, to accept reasonable risks to his or her person and property that are not acceptable in the exercise of commercial or airline transport pilot privileges, and, at the same time, considers the need to protect the safety of persons and property in other aircraft and on the ground.

A SODA granted to a person who does not meet the applicable standards of part 67 may be withdrawn, at the discretion of the Federal Air Surgeon, at any time if:

- There is adverse change in the holder's medical condition;
- The holder fails to comply with a statement of functional limitations or operational limitations issued under the special issuance section of part 67 (14 CFR 67.401).
- Public safety would be endangered by the holder's exercise of airman privileges;
- The holder fails to provide medical information reasonably needed by the Federal Air Surgeon for certification under the special issuance section of part 67 (14 CFR 67.401).
- The holder makes or causes to be made a statement or entry that is the basis for withdrawal of a SODA under the falsification section of part 67 (14 CFR 67.403); or

- A person who has been granted a SODA under the special issuance section of part 67 (14 CFR 67.401), based on a special medical flight or practical test need not take the test again during later medical examinations unless the Federal Air Surgeon determines or has reason to believe that the physical deficiency has or may have degraded to a degree to require another special medical flight test or practical test.

The authority of the Federal Air Surgeon under the special issuance section of part 67 (14 CFR 67.401) is also exercised by the Manager, AMCD, and each RFS.

If a SODA is withdrawn at any time, the following procedures apply:

- The holder of the SODA will be served a letter of withdrawal stating the reason for the action;
- By not later than 60 days after the service of the letter of withdrawal, the holder of the SODA may request, in writing, that the Federal Air Surgeon provide for review of the decision to withdraw. The request for review may be accompanied by supporting medical evidence;
- Within 60 days of receipt of a request for review, a written final decision either affirming or reversing the decision to withdraw will be issued; and
- A medical certificate rendered invalid pursuant to a withdrawal, in accordance with the special issuance section of part 67 (14 CFR 67.401(a)) shall be surrendered to the Administrator upon request.

d. National Transportation Safety Board (NTSB)

Within 60 days after a final FAA denial of an unrestricted airman medical certificate, an airman may petition the NTSB for a review of that denial. The NTSB does not have jurisdiction to review the denial of a SODA or special issuance airman medical certificate. A petition for NTSB review must be submitted in writing to:

NATIONAL TRANSPORTATION SAFETY BOARD
490 L'ENFANT PLAZA, EAST SW
WASHINGTON, DC 20594-0001

The NTSB is an independent agency of the Federal Government that has the authority to review on appeal the suspension, amendment, modification, revocation, or denial of any certificate or license issued by the FAA Administrator.

An Administrative Law Judge for the NTSB may hold a formal hearing at which the FAA will present documentary evidence and testimony by medical specialists supporting the denial decision. The petitioner will also be given an opportunity to present evidence and

testimony at the hearing. The Administrative Law Judge's decision is subject to review by the full NTSB.

CHAPTER 2

APPLICATION FOR MEDICAL CERTIFICATION

General Information

Chapter 2 contains guidance for items on the Medical History and General Information page of FAA Form 8500-8, Application for Airman Medical Certificate or Airman Medical and Student Pilot Certificate.

AME Guidance for Positive Identification of Airmen and Application Distribution Procedures

Applicants must be informed (preferably at the time of scheduling the examination) that they must provide photo identification prior to being given an 8500-8 as a condition of the airman medical certification application process. Applicants who have recently had a name and/or address change should be prepared to provide official proof of the change(s) if their official identification media is not updated.

NOTE: If an airman objects to providing identification, the Examiner should not withhold certification for this reason alone, but should report details of the incident promptly to the AMCD, AAM-300, or the appropriate RFS. The Examiner should also note the refusal to show identification on the application form in Item 60, transmit the application via AMCS, then forward the original FAA Copy of the form to the AMCD, AAM-300.

Examiners are instructed to follow the identification and distribution procedures below:

I. Before the Applicant is Given an 8500-8:

Applicants must present photo identification. Government-issued photo identification (e.g., driver's license or identification card issued by a driver's license issuing authority, military identification, or passport) is preferred. An applicant who does not have government-issued photo identification may use non-photo government-issued identification (e.g., pilot certificate, birth certificate, voter registration card) in conjunction with other photo identification (e.g., work identification card, student identification card).

On occasion, individuals have attempted to be examined in the name of another person. If the applicant is new to the Examiner, *the Examiner should request some evidence of positive identification*. The picture on the photo identification must identify the applicant who is being examined. Verify that the photo identification adequately represents the applicant. Inform your Regional Flight Surgeon (RFS) of the incident.

II. Distribution of the FAA Form 8500-8 to the Applicant.

Both the yellow and white certificates and their instructions **must** be removed before the application is given to the applicant. The Information for Applicant and Instructions for Completion of the Application pages **must** also be given to the applicant.

On the general information and medical history page of the application, the applicant is to fill in Items 1-20 in his or her handwriting using a ballpoint pen, exerting sufficient pressure for all copies, to make legible imprints upon the Examiner's and airman's copies of the form.

III. After the Applicant Completes the Medical History Page of the FAA Form 8500-8:

The Examiner must ensure completeness and review all items 1 through 20. A medical certificate must never be issued to an applicant who refuses to answer Item 13, page 26, Items 16 and 17, page 27, Item 18, page 28, or Item 19, page 34, or to an applicant who refuses to sign the form (Item 20, front side of the examination form). The date for Item 16 may be estimated if the applicant does not recall the actual date of the last examination. However, for the sake of electronic transmission, it must be placed in the mm/dd/yyyy format. (See Item 16, page 27).

Verify whether the identification provided includes an address. If so, note whether it matches the address the applicant entered on the 8500-8. If the address does not match or no address is provided on the identification media then the AME must record the type of identification(s) provided and any identifying number(s) on it under Item 60 of the 8500-8.

The applicant's Social Security Number (SSN) is not mandatory. Failure to provide is not grounds for refusal to issue a medical certificate. (See Item 4, page 4). All other items on the form must be completed.

Applicants must provide their home address on the 8500-8. Applicants may use a private mailing address (e.g., a P.O. Box number or a mail drop) if that is their preferred mailing address; however, under Item 18 (in the "Explanations" box) of the 8500-8, they must provide their home address.

The applicant must personally enter all data and make all corrections on the application form. The applicant should initial all corrections. The application constitutes a legal document and *must be completed in the applicant's handwriting*. If for any reason someone other than the applicant enters information in Items 1-20, the person should initial beside that item (including any check marks), and the Examiner should add a note explaining in Item 60 (see, page 149), the person's inability to enter the data.

Strict compliance with this procedure is essential in case it becomes necessary for the FAA to take legal action for falsification of the application.

ITEMS 1-2. APPLICATION FOR; CLASS OF MEDICAL CERTIFICATE APPLIED FOR

1. Application For:		2. Class of Medical Certificate Applied For:			
<input type="checkbox"/> Airman Medical Certificate	<input type="checkbox"/> Airman Medical and Student Pilot Certificate	<input type="checkbox"/> 1 ST	<input type="checkbox"/> 2nd	<input type="checkbox"/> 3rd	

The applicant indicates whether the application is for an Airman Medical Certificate (white) or an Airman Medical and Student Pilot Certificate (yellow), and the class of medical certificate desired.

The class of medical certificate sought by the applicant is needed so that the appropriate medical standards may be applied. The class of certificate issued must correspond with that for which the applicant has applied.

The applicant may ask for a medical certificate of a higher class than needed for the type of flying or duties currently performed. For example, a student pilot may ask for a first-class medical certificate to see if he or she qualifies medically before entry into an aviation career.

The Examiner applies the standards appropriate to the class sought, not to the airman's duties - either performed or anticipated. The Examiner should never issue more than one certificate based on the same examination.

ITEMS 3-10. IDENTIFICATION

3. Last Name		First Name		Middle Name
4. Social Security Number - -				
5. Address		Telephone Number ()		
Number/Street				
City		State/Country		Zip Code
6. Date of Birth	7. Color of Hair	8. Color of Eyes	9. Sex	
MM / DD / YYYY				
Citizenship				
10. Type of Airman Certificate(s) you hold				
<input type="checkbox"/> None	<input type="checkbox"/> ATC Specialist	<input type="checkbox"/> Flight Instructor	<input type="checkbox"/> Recreational	
<input type="checkbox"/> Airline Transport	<input type="checkbox"/> Flight Engineer	<input type="checkbox"/> Private	<input type="checkbox"/> Other	
<input type="checkbox"/> Commercial	<input type="checkbox"/> Fight Navigator	<input type="checkbox"/> Student		

The following information is required for identification of the individual who is applying for medical certification:

3. Last Name; First Name; Middle Name

The applicant's last, first, and middle name (or initial if appropriate) **must** be printed. All applicants without a middle name should enter "NMN" or "NONE". Nicknames and abbreviated names **must** not be used. **NOTE:** If the applicant's name changed for any reason, the current name is listed on the application and any former name(s) in the EXPLANATIONS box of Item 18 on the application.

4. Social Security Number (SSN)

Although applicants are asked to complete all questions on the application, FAA Form 8500-8, they are not legally required to complete Item 4. The FAA requests the SSN for identification purposes and record control. Its use as a unique identifier may eliminate a mistake in identification.

5. Address and Telephone Number

*The applicant **must** print a permanent mailing address, including country, and the zip code (full nine digits if known). The person must also provide a current daytime area code and telephone number.*

When a P.O. Box, rural route number, or mail drop is used in place of a permanent physical address, the applicant must provide a written and signed statement on a separate sheet of paper. The statement must explain why the address is being used and include a map or directions showing the location of the residence. Keep the signed statement and map or directions on file for 3 years with the AME Work Copy.

6. Date of Birth

The applicant **must** enter the numbers for the month, day, and year of birth in order (e.g., 04/29/2000 for April 29, 2000). Name, date of birth, and SSN are the basic identifiers of airmen. When an Examiner wishes to communicate with the FAA concerning an applicant, the Examiner **must** give the applicant's full name, date of birth, and SSN if at all possible. The applicant should indicate citizenship; e.g., U.S.A.

If the applicant wishes to be issued an Airman Medical and Student Pilot Certificate (FAA Form 8420-2), the Examiner should check the date of birth to ensure that the applicant is at least 16 years old. Unless the applicant is at least 16 years old, a combined Airman Medical and Student Pilot Certificate *may not be issued*, even if the applicant will become 16 before the certificate expires (except as noted below).

The FAA will **not confirm** a certificate issued by an Examiner to a person who is less than 16 years old. The applicant must be at least 16 **at the time of application** to be eligible for a student pilot certificate for flight of powered aircraft. This minimum age requirement applies only to the issuance of the yellow FAA Form 8420-2, and never to the issuance of the white medical certificate (FAA Form 8500-9).

All applicants must be asked to prove age and identity. A driver's license or passport provides age and identity and is preferred. Applicants may use other government-issued identification for age (such as certified copy of a birth certificate); however, you must request separate photo identification for identity (such as a work badge). Verify that the address provided is the same as that given under Item 5. Record the type of identification(s) provided and identifying number(s) under Item 61. Make a copy of the identification and keep it on file for 3 years with the AME work copy.

If the applicant is not yet 16 and wishes to solo on or after his or her 16th birthday, the Examiner should issue a white FAA Form 8500-9 (if the applicant is fully qualified medically). On or after his or her 16th birthday, the applicant may obtain a student pilot certificate for the flight from a FAA Flight Standards District Office (FSDO) or designated Flight Examiner upon presentation of the FAA Form 8500-9 (white medical certificate).

An alternative procedure for this situation is for the Examiner to issue the Airman Medical and Student Pilot Certificate, FAA Form 8420-2 (yellow), with the following statement in the limitations block of the student pilot certificate:

NOT VALID UNTIL (MONTH, DAY, AND YEAR OF 16TH BIRTHDAY)

This procedure should not be used if the applicant's 16th birthday will occur more than 30 days from the date of application.

Although nonmedical regulations allow an airman to solo a glider or balloon at age 14, a medical certificate is not required for glider or balloon operations. These airmen are required to certify to the FAA that they have no known physical defects that make them unable to pilot a glider or balloon. This certification is made at the FAA FSDO's.

There is a maximum age requirement for certain air carrier pilots. Because this is not a medical requirement but an operational one, the Examiner may issue medical certificates without regard to age to any applicant who meets the medical standards.

7. Color of Hair

Color of hair should be entered as "brown," "black," "blonde," "gray," or "red". Lack of hair should be entered as "bald". No abbreviations or other colors should be used. This information is for identification only.

8. Color of Eyes

Color of eyes should be entered as "brown," "black," "blue," "hazel," "gray," or "green". No abbreviations or other colors should be used. This information is for identification only.

9. Sex

The applicant should enter either male or female.

10. Type of Airman Certificate(s) You Hold

Applicant checks appropriate block(s).

ITEMS 11-12. OCCUPATION; EMPLOYER

11. Occupation	12. Employer
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Occupational data are principally used for statistical purposes. This information, along with information obtained from Items 10, 14, and 15, may be important in determining whether a SODA may be issued, if applicable.

11. Occupation

This should reflect the applicant's major employment. "Pilot" should only be reported when the applicant earns a livelihood from flying.

12. Employer

The employer's name should be entered by the applicant.

ITEM 13. HAS YOUR FAA AIRMAN MEDICAL CERTIFICATE EVER BEEN DENIED, SUSPENDED, OR REVOKED?

13. Has Your FAA Airman Certificate Ever Been Denied, Suspended, or Revoked?		
<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, give date _____
MM / DD / YYYY		

The applicant shall check "yes" or "no". If "yes" is checked, the applicant should enter the date of action and should report details in the EXPLANATIONS box of Item 18.

The Examiner may not issue a medical certificate to an applicant who has checked "yes". The only exceptions to this prohibition are:

- **The applicant presents written evidence from the FAA that he or she was subsequently medically certificated and that an Examiner is authorized to issue a renewal medical certificate to the person if medically qualified; or**
- The Examiner obtains oral or written authorization to issue a medical certificate from an FAA medical office.

ITEMS 14-15. TOTAL PILOT TIME

Total Pilot Time (Civilian Only)	
14. To Date	15. Past 6 months

14. Total Pilot Time to Date

The applicant should indicate the total number of *civilian* flight hours and whether those hours are logged (LOG) or estimated (EST).

15. Total Pilot Time Past 6 Months

The applicant should provide the number of *civilian* flight hours in the 6-month period immediately preceding the date of this application. The applicant should indicate whether those hours are logged (LOG) or estimated (EST).

ITEM 16. DATE OF LAST FAA MEDICAL APPLICATION

Date of Last FAA Medical Application	<input type="checkbox"/>
MM/DD/YYYY	No Prior Application

If a prior application was made, the applicant should indicate the date of the last application, even if it is only an estimate of the year. This item should be completed even if the application was made many years ago or the previous application did not result in the issuance of a medical certificate. If no prior application was made, the applicant should check the appropriate block in Item 16.

ITEM 17.a. DO YOU CURRENTLY USE ANY MEDICATION (PRESCRIPTION OR NONPRESCRIPTION)?

17.a. Do You Currently Use Any Medication (Prescription or Nonprescription?)		
(If yes, list below medication(s) used and check appropriate box).		
<input type="checkbox"/> No	<input type="checkbox"/> Yes	
		Previously Reported
		<u>Yes</u> <u>No</u>
		<input type="checkbox"/> <input type="checkbox"/>
		<input type="checkbox"/> <input type="checkbox"/>
		<input type="checkbox"/> <input type="checkbox"/>
		<input type="checkbox"/> <input type="checkbox"/>

(If more space is required, see 17.a. on the instruction sheet).

If the applicant checks yes, give name of medication(s) and indicate if the medication was listed in a previous FAA medical examination.

This includes both prescription and nonprescription medication. (Additional guidelines for the certification of airmen who use medication may be found in Chapter 4).

For example, any airman who is undergoing continuous treatment with anticoagulants, antiviral agents, anxiolytics, barbiturates, chemotherapeutic agents, experimental hypoglycemic, investigational, mood-ameliorating, motion sickness, narcotic, sedating antihistaminic, sedative, steroid drugs, or tranquilizers must be deferred certification *unless* the treatment has previously been cleared by FAA medical authority. In such an instance, the applicant should provide the Examiner with a copy of any FAA correspondence that supports the clearance.

During periods in which the foregoing medications are being used for treatment of acute illnesses, the airman is under obligation to refrain from exercising the privileges of his/her airman medical certificate unless cleared by the FAA.

Further information concerning an applicant's use of medication may be found under the items pertaining to specific medical condition(s) for which the medication is used.

ITEM 17.b. DO YOU EVER USE NEAR VISION CONTACT LENS(ES) WHILE FLYING?

17.b. Do You Ever Use Near Vision Contact Lens(es) While Flying?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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The applicant should indicate whether near vision contact lens(es) is/are used while flying. If the applicant answers "yes", the AME should counsel the applicant that the use of contact lens(es) (bifocal or unifocal) specifically for the correction of near vision is/are inappropriate. The AME should note in Item 60 that this counseling has been given.

If the applicant checks "yes" and no further comment is noted on FAA Form 8500-8 by either the applicant or the AME, a letter will automatically be sent to the applicant informing him or her that the use of contact lens(es) specifically to correct near vision is/are inappropriate for flying.

ITEM 18. MEDICAL HISTORY

18. Medical History - HAVE YOU EVER IN YOUR LIFE BEEN DIAGNOSED WITH, HAD, OR DO YOU PRESENTLY HAVE ANY OF THE FOLLOWING? Answer "yes" or "no" for every condition listed below. In the EXPLANATIONS box below, you may note "PREVIOUSLY REPORTED, NO CHANGE" only if the explanation of the condition was reported on a previous application for an airman medical certificate and there has been no change in your condition. See Instructions Page								
Yes	No	Condition	Yes	No	Condition	Yes	No	Condition
a. <input type="checkbox"/>	<input type="checkbox"/>	Frequent or severe headaches	g. <input type="checkbox"/>	<input type="checkbox"/>	Heart or vascular trouble	m. <input type="checkbox"/>	<input type="checkbox"/>	Mental disorders of any sort; depression, anxiety, etc.
b. <input type="checkbox"/>	<input type="checkbox"/>	Dizziness or fainting spell	h. <input type="checkbox"/>	<input type="checkbox"/>	High or low blood pressure	n. <input type="checkbox"/>	<input type="checkbox"/>	Substance dependence or failed a drug test ever; or substance abuse or use of illegal substance in the last 2 years
c. <input type="checkbox"/>	<input type="checkbox"/>	Unconsciousness for any reason	i. <input type="checkbox"/>	<input type="checkbox"/>	Stomach, liver, or intestinal trouble			
d. <input type="checkbox"/>	<input type="checkbox"/>	Eye or vision trouble except glasses	j. <input type="checkbox"/>	<input type="checkbox"/>	Kidney stone or blood in urine	o. <input type="checkbox"/>	<input type="checkbox"/>	Alcohol dependence or abuse
e. <input type="checkbox"/>	<input type="checkbox"/>	Hay fever or allergy	k. <input type="checkbox"/>	<input type="checkbox"/>	Diabetes	p. <input type="checkbox"/>	<input type="checkbox"/>	Suicide attempt
f. <input type="checkbox"/>	<input type="checkbox"/>	Asthma or lung disease	l. <input type="checkbox"/>	<input type="checkbox"/>	Neurological disorders; epilepsy, seizures, stroke, paralysis, etc.	q. <input type="checkbox"/>	<input type="checkbox"/>	Motion sickness requiring medication
Conviction and/or Administrative Action History - See Instructions Page								
Yes	No	History of (1) any conviction(s) involving driving while intoxicated by, while impaired by, or while under the influence of alcohol or a drug; or (2) history of any conviction(s) or administrative action(s) involving an offense(s) which resulted in the denial, suspension, cancellation, or revocation of driving privileges or which resulted in attendance at an educational or a rehabilitation program.					Yes	No
v. <input type="checkbox"/>	<input type="checkbox"/>						w. <input type="checkbox"/>	<input type="checkbox"/>
							History of nontraffic conviction(s)(misdemeanors or felonies).	
EXPLANATIONS: See Instructions Page							For FAA Use Review Action Codes	

Each item under this heading must be checked either "yes" or "no". For all items checked "yes", a description and approximate date of every condition the applicant has ever been diagnosed with, had, or presently has, must be given in the EXPLANATIONS box. If information has been reported on a previous application for airman medical certification and there has been no change in the condition, the applicant may note "PREVIOUSLY REPORTED, NO CHANGE" in the EXPLANATIONS box, but the applicant must still check "yes" to the condition.

Of particular importance are conditions that have developed since the last FAA medical examination. If more space is needed, a plain sheet of paper bearing the applicant's full printed name, date of birth, signature, and the date should be used.

The Examiner must take the time to review the applicant's responses on FAA Form 8500-8 before starting the applicant's medical examination.

The Examiner should ensure that the applicant has checked all of the boxes in Item 18 as either "yes" or "no". The Examiner should use information obtained from this review in asking the applicant pertinent questions during the course of the examination. Certain aspects of the individual's history may need to be elaborated upon. The Examiner should provide in Item 60 an explanation of the nature of items checked "yes" in Items 18.a. through 18.x. An additional sheet may be added if necessary.

Supplementary reports from the applicant's physician(s) should be obtained and forwarded to the AMCD, when necessary, to clarify the significance of an item of history. The responsibility for providing such supplementary reports rests with the applicant. A discussion with the Examiner's RFS may clarify and expedite the certification process at that time.

Affirmative answers alone in Item 18 do not constitute a basis for denial of a medical certificate. A decision concerning issuance or denial should be made by applying the medical standards pertinent to the conditions uncovered by the history.

Experience has shown that, when asked direct questions by a physician, applicants are likely to be candid and willing to discuss medical problems.

The Examiner should attempt to establish rapport with the applicant and to develop a complete medical history. Further, the Examiner should be familiar with the FAA certification policies and procedures in order to provide the applicant with sound advice.

18.a. Frequent or severe headaches. The applicant should report frequency, duration, characteristics, severity of symptoms, neurologic manifestations, and whether they have been incapacitating, treatment and side effects if any. (See Item 46, page 99).

18.b. Dizziness or fainting spells. The applicant should describe characteristics of the episode; e.g., spinning or lightheadedness, frequency, factors leading up to and surrounding the episode, associated neurologic symptoms; e.g., headache, nausea, LOC, or paresthesias. Include diagnostic workup and treatment if any. (See Items 25-30, page 38, and Item 46, page 99).

18.c. Unconsciousness for any reason. The applicant should describe the event(s) to determine the primary organ system responsible for the episode, witness statements, initial treatment, and evidence of recurrence or prior episode. Although the regulation states, “an unexplained disturbance of consciousness is disqualifying”, it does not mean to imply that the applicant can be certificated if the etiology is identified, because the etiology may also be disqualifying in and of itself. (See Item 46, page 99).

18.d. Eye or vision trouble except glasses. The Examiner should personally explore the applicant's history by asking questions, concerning any changes in vision, unusual visual experiences (halos, scintillations, etc.), sensitivity to light, injuries, surgery, or current use of medication. Does the applicant report inordinate difficulties with eye fatigue or strain? Is there a history of serious eye disease such as glaucoma or other disease commonly associated with secondary eye changes, such as diabetes? Obtain an 8500-7, Report of Eye Evaluation, for medical conditions other than glaucoma or ocular hypertension for which you obtain an FAA Form 8500-14, Report of Eye Evaluation for Glaucoma. Under all circumstances, please advise the examining eye specialist to explain why the airman is unable to correct to Snellen visual acuity of 20/20. (Also see Items 31-34, page 45, Item 53, page 138, and Item 54, on page 140).

18.e. Hay fever or allergy. The applicant should report frequency and duration of symptoms, and whether they have been incapacitating by the condition. Mention should also be made of treatment and side effects. The Examiner should inquire whether the applicant has ever experienced any “ear block”, barotitis, or any other symptoms that could interfere with aviation safety? Barosinusitis is of concern and should also be ruled out. (See Item 26, page 38).

18.f. Asthma or lung disease. The applicant should provide frequency and severity of asthma attacks, include medications and number of visits to the hospital and/or emergency room. For other lung conditions, a detailed description of symptoms/diagnosis, surgical intervention, and medications should be provided. (See Item 35, page 54).

18.g. Heart or vascular trouble. The applicant should describe the condition to include, dates, symptoms and treatment, and provide medical reports to assist in the certification decision-making process. These reports should include: operative reports of coronary intervention to include the original cardiac catheterization report, stress tests, worksheets, and original tracings (or a legible copy). When stress tests are provided, forward the reports, worksheets and original tracings (or a legible copy) to the FAA. Part 67 provides that, for all classes of medical certificates, an established medical history or clinical diagnosis of myocardial infarction, angina pectoris, cardiac valve replacement, permanent cardiac pacemaker implantation, heart replacement, or

coronary heart disease that has required treatment or, if untreated, that has been symptomatic or clinically significant, is cause for denial. (See Item 36, page 60)

18.h. High or low blood pressure. The applicant should provide history and treatment. Issuance of a medical certificate to an applicant with high blood pressure may depend on the current blood pressure levels and whether the applicant is taking anti-hypertensive medication. The Examiner should also determine if the applicant has a history of complications, adverse reactions to therapy, hospitalization, etc. (Details are given in Items 36, page 60, and Item 55, page 142).

18.i. Stomach, liver, or intestinal trouble. The applicant should provide history and treatment, pertinent medical records, current status report, and medication. If a surgical procedure was done, provide the operative and pathology reports. (See Item 38, page 73).

18.j. Kidney stone or blood in urine. The applicant should provide history and treatment, pertinent medical records, current status report and medication. If a procedure was done, provide the report and pathology reports. (See Item 41, page 82).

18.k. Diabetes. The applicant should describe the condition to include, symptoms and treatment. Comment on the presence or absence of hyperglycemic and/or hypoglycemic episodes. A medical history or clinical diagnosis of diabetes mellitus requiring insulin or other hypoglycemic drugs for control are disqualifying. The Examiner can help expedite the FAA review by assisting the applicant in gathering medical records and submitting a current specialty report. (See Item 48, page 119).

18.l. Neurological disorders; epilepsy, seizures, stroke, paralysis, etc. The applicant should provide history and treatment, pertinent medical records, current status report and medication. The Examiner should obtain details about such a history and report the results. An established diagnosis of epilepsy, a transient loss of control of nervous system function(s), or a disturbance of consciousness is a basis for denial no matter how remote the history. Like all other conditions of aeromedical concern, the history surrounding the event is crucial. Certification is possible if a satisfactory explanation can be established. (See Item 46, page 99).

18.m. Mental disorders of any sort; depression, anxiety, etc. An affirmative answer to Item 18.m. requires investigation through supplemental history taking. Dispositions will vary according to the details obtained. An applicant with an established history of a personality disorder that is severe enough to have repeatedly manifested itself by overt acts, a psychosis disorder, or a bipolar disorder must be denied or deferred by the Examiner. (See Items 46, page 99, and Item 47, page 111).

18.n. Substance dependence; or failed a drug test ever; or substance abuse or use of illegal substance in the last 2 years. "Substance" includes alcohol and other drugs (e.g., PCP, sedatives and hypnotics, anxiolytics, marijuana, cocaine, opioids, amphetamines, hallucinogens, and other psychoactive drugs or chemicals). For a "yes" answer to Item 18.n., the Examiner should obtain a detailed description of the history. A

history of substance dependence or abuse is disqualifying. The Examiner must defer issuance of a certificate if there is doubt concerning an applicant's substance use. (See Item 47, page 111).

18.o. Alcohol dependence or abuse. See Item 18.n.

18.p. Suicide attempt. A history of suicidal attempts or suicidal gestures requires further evaluation. The ultimate decision of whether an applicant with such a history is eligible for medical certification rests with the FAA. The Examiner should take a supplemental history as indicated, assist in the gathering of medical records related to the incident(s), and, if the applicant agrees, assist in obtaining psychiatric and/or psychological examinations. (See Item 47, page 111).

18.q. Motion sickness requiring medication. A careful history concerning the nature of the sickness, frequency and need for medication is indicated when the applicant responds affirmatively to this item. Because motion sickness varies with the nature of the stimulus, it is most helpful to know if the problem has occurred in flight or under similar circumstances. (See Item 29, page 38).

18.r. Military medical discharge. If the person has received a military medical discharge, the Examiner should take additional history and record it in Item 60. It is helpful to know the circumstances surrounding the discharge, including dates, and whether the individual is receiving disability compensation. If the applicant is receiving veteran's disability benefits, the claim number and service number are helpful in obtaining copies of pertinent medical records. The fact that the applicant is receiving disability benefits does not necessarily mean that the application should be denied.

18.s. Medical rejection by military service. The Examiner should inquire about the place, cause, and date of rejection and enter the information in Item 60. It is of great assistance to the applicant and the FAA if the Examiner can help obtain copies of military documents for attachment to the FAA Form 8500-8. If a delay of more than 2 weeks is expected, the Examiner should transmit FAA Form 8500-8 to the FAA with a note specifying what documents will be forwarded later under separate cover.

Disposition will depend upon whether the medical condition still exists or whether a history of such a condition requires denial or deferral under the FAA medical standards.

18.t. Rejection for life or health insurance. The Examiner should inquire regarding the circumstances of rejection. The supplemental history should be recorded in Item 60. Disposition will depend upon whether the medical condition still exists or whether a history of such a condition requires denial or deferral under the FAA medical standards.

18.u. Admission to hospital. For each admission, the applicant should list the dates, diagnoses, duration, treatment, name of the attending physician, and complete address of the hospital or clinic. If previously reported, the applicant may enter "PREVIOUSLY REPORTED, NO CHANGE". A history of hospitalization does not disqualify an applicant, although the medical condition that resulted in hospitalization may.

18.v. Conviction and/or Administrative Action History. The events to be reported are specifically identified in Item 18.v. of FAA Form 8500-8. If "yes" is checked, the applicant must describe the conviction(s) and/or administrative action(s) in the EXPLANATIONS box. The description must include:

- The alcohol or drug offense for which the applicant was convicted or the type of administrative action involved (e.g., attendance at an educational or rehabilitation program in lieu of conviction; license denial, suspension, cancellation, or revocation for refusal to be tested; educational safe driving program for multiple speeding convictions; etc.);
- The name of the state or other jurisdiction involved; and
- The date of the conviction and/or administrative action.

If there have been no new convictions or administrative actions since the last application, the applicant may enter "PREVIOUSLY REPORTED, NO CHANGE." Convictions and/or administrative actions affecting driving privileges may raise questions about the applicant's fitness for certification and may be cause for disqualification. (See Items 18.n. and 47, page 111).

A single driving while intoxicated (DWI) conviction or administrative action usually is not cause for denial if there are no other instances or indications of substance dependence or abuse. The Examiner should inquire regarding the applicant's alcohol use history, the circumstances surrounding the incident, and document those findings in Item 60, page 149. (See Item 47, page 111).

NOTE: The Examiner should advise the applicant that the reporting of alcohol or drug offenses (i.e., motor vehicle violation) on the history part of the medical application does not relieve the airman of responsibility to report each motor vehicle action to the FAA within 60 days of the occurrence to the Civil Aviation Security Division, AAC-700; P.O. Box 25810; Oklahoma City, OK 73125-0810.

18.w. History of nontraffic convictions. The applicant must report any other (nontraffic) convictions (e.g., assault, battery, public intoxication, robbery, etc.). The applicant must name the charge for which convicted and the date of the conviction(s), and copies of court documents (if available). (See Item 47, page 111).

18.x. Other illness, disability, or surgery. The applicant should describe the nature of these illnesses in the EXPLANATIONS box. If additional records, tests, or specialty reports are necessary in order to make a certification decision, the applicant should so be advised. If the applicant does not wish to provide the information requested by the Examiner, the Examiner should defer issuance.

If the applicant wishes to have the FAA review the application and decide what ancillary documentation is needed, the Examiner should defer issuance of the medical certificate and forward the completed FAA Form 8500-8 to the AMCD. If the Examiner proceeds to obtain documentation, but all data will not be received within the 2 weeks, FAA Form 8500-8 should be transmitted immediately to the AMCD with a note that additional documents will be forwarded later under separate cover.

ITEM 19. VISITS TO HEALTH PROFESSIONAL WITHIN LAST 3 YEARS

19. Visits to Health Professional Within Last 3 Years			<input type="checkbox"/> Yes (Explain Below)	<input type="checkbox"/> NO	See Instructions Page
Date	Name, Address, and Type of Health Professional Consulted	Reason			

The applicant should list all visits in the last 3 years to a physician, physician assistant, nurse practitioner, psychologist, clinical social worker, or substance abuse specialist for treatment, examination, or medical/mental evaluation. The applicant should list visits for counseling only if related to a personal substance abuse or psychiatric condition. The applicant should give the name, date, address, and type of health professional consulted and briefly state the reason for the consultation. Multiple visits to one health professional for the same condition may be aggregated on one line.

Routine dental, eye, and FAA periodic medical examinations and consultations with an employer-sponsored employee assistance program (EAP) may be excluded unless the consultations were for the applicant's substance abuse or unless the consultations resulted in referral for psychiatric evaluation or treatment.

When an applicant does provide history in Item 19, the Examiner should review the matter with the applicant. The Examiner will record in Item 60 only that information needed to document the review and provide the basis for a certification decision. If the Examiner finds the information to be of a personal or sensitive nature with no relevancy to flying safety, it should be recorded in Item 60 as follows:

"Item 19. Reviewed with applicant. History not significant or relevant to application".

If the applicant is otherwise qualified, a medical certificate may be issued by the Examiner.

FAA medical authorities, upon review of the application, will ask for further information regarding visits to health care providers only where the physical findings, report of examination, applicant disclosure, or other evidence suggests the possible presence of a disqualifying medical history or condition.

If an explanation has been given on a previous report(s) and there has been no change in the condition, the applicant may enter "PREVIOUSLY REPORTED, NO CHANGE".

Of particular importance is the reporting of conditions that have developed since the applicant's last FAA medical examination. The Examiner is asked to comment on all entries, including those "PREVIOUSLY REPORTED, NO CHANGE". These comments may be entered under Item 60.

ITEM 20. APPLICANT'S NATIONAL DRIVER REGISTER AND CERTIFYING DECLARATION

<p style="text-align: center;">— NOTICE —</p> <p>Whoever in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or device a material fact, or who makes any false, fictitious or fraudulent statements or representations, or entry, may be fined up to \$250,000 or imprisoned not more than 5 years, or both, (18 U.S. Code Secs. 1001; 3571).</p>	<p style="text-align: center;">20. Applicant's National Driver Register and Certifying Declarations</p> <p>I hereby authorize the National Driver Register (NDR), through a designated State Department of Motor Vehicles, to furnish to the FAA information pertaining to my driving record. This consent constitutes authorization for a single access to the information contained in the NDR to verify information provided in this application. Upon my request, the FAA shall make the information received from the NDR, if any, available for my review and written comment. Authority: 23 U.S. Code 401, Note.</p> <p style="text-align: center;">NOTE: All persons using this form must sign it. NDR consent, however, does not apply unless this form is used as an application for Medical Certificate or Medical Certificate and Student Pilot Certificate.</p> <p>I hereby certify that all statements and answers provided by me on this application form are complete and true to the best of my knowledge, and I agree that they are to be considered part of the basis for issuance of any FAA certificate to me. I have also read and understand the Privacy Act statement that accompanies this form.</p>	
	<p>Signature of Applicant</p>	<p>Date</p> <p style="text-align: center;">MM DD YYYY</p>

In addition to making a declaration of the completeness and truthfulness of the applicant's responses on the medical application, the applicant's declaration authorizes the National Driver Register to release the applicant's adverse driving history information, if any, to the FAA. The FAA uses such information to verify information provided in the application. The applicant should be instructed to sign Item 20 after reading the declaration. The signature should be in ink. If an applicant does not sign the declaration for any reason, the Examiner shall not issue a medical certificate but forward the incomplete application to the AMCD.

CHAPTER 3

EXAMINATION TECHNIQUES AND CRITERIA FOR QUALIFICATION

ITEMS 21- 48 of FAA Form 8500-8

The Examiner must personally conduct the physical examination. This chapter provides guidance for completion of Items 21-48 of the Application for Airman Medical Certificate or Airman Medical and Student Pilot Certificate, FAA Form 8500-8.

The Examiner must carefully read the applicant's history page of FAA Form 8500-8 (Items 1-20) *before* conducting the physical examination and completing the Report of Medical Examination. This alerts the Examiner to possible pathological findings.

The Examiner must note in Item 60 of the FAA Form 8500-8 any condition found in the course of the examination. The Examiner must list the facts, such as dates, frequency, and severity of occurrence.

When a question arises, the Federal Air Surgeon encourages Examiners first to check this Guide for Aviation Medical Examiners and other FAA informational documents. If the question remains unresolved, the Examiner should seek advice from a RFS or the Manager of the AMCD.

ITEMS 21-22. HEIGHT AND WEIGHT

21. Height (inches)	22. Weight (pounds)
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ITEM 21. Height

Record the applicant's height in inches. Although there are no medical standards for height, exceptionally short individuals may not be able to effectively reach all flight controls and must fly specially modified aircraft. If required, the FAA will place operational limitations on the pilot certificate.

ITEM 22. Weight

Record the applicant's weight in pounds.

ITEMS 23-24. STATEMENT OF DEMONSTRATED ABILITY (SODA); SODA SERIAL NUMBER

23. Statement of Demonstrated Ability (SODA)		
<input type="checkbox"/> Yes	<input type="checkbox"/> No	Defect Noted:

ITEM 23. Has a SODA ever been issued?

Ask the applicant if a SODA has ever been issued. If the answer is "yes", ask the applicant to show you the document. Then check the "yes" block and record the nature and degree of the defect.

SODA's are valid for an indefinite period or until an adverse change occurs that results in a level of defect worse than that stated on the face of the document.

The FAA issues SODA's for certain static defects, but not for disqualifying condition or conditions that may be progressive. The extent of the functional loss that has been cleared by the FAA is stated on the face of the SODA. If the Examiner finds the condition has become worse, a medical certificate should not be issued even if the applicant is otherwise qualified. The Examiner should also defer issuance if it is unclear whether the applicant's present status represents an adverse change.

The Examiner must take special care not to issue a medical certificate of a higher class than that specified on the face of the SODA even if the applicant appears to be otherwise medically qualified. The Examiner may note in Item 60 the applicant's desire for a higher class.

ITEM 24. SODA Serial Number

24. SODA Serial Number

Enter the assigned serial number in the space provided.

ITEMS 25-30. EAR, NOSE AND THROAT (ENT)

CHECK EACH ITEM IN APPROPRIATE COLUMN	Normal	Abnormal
25. Head, face, neck, and scalp		
26. Nose		
27. Sinuses		
28. Mouth and Throat		
29. Ears, general (internal and external canals: Hearing under Item 49)		
30. Ear Drums (Perforation)		

I. Code of Federal Regulations**All Classes: 14 CFR 67.105(b)(c), 67.205(b)(c), and 67.305(b)(c)**

(b) No disease or condition of the middle or internal ear, nose, oral cavity, pharynx, or larynx that-

(1) Interferes with, or is aggravated by, flying or may reasonably be expected to do so; or

(2) Interferes with, or may reasonably be expected to interfere with, clear and effective speech communication.

(c) No disease or condition manifested by, or that may reasonably be expected to be manifested by, vertigo or a disturbance of equilibrium.

II. Examination Techniques

1. The **head and neck** should be examined to determine the presence of any significant defects such as:

- a. Bony defects of the skull
- b. Gross deformities
- c. Fistulas
- d. Evidence of recent blows or trauma to the head
- e. Limited motion of the head and neck
- f. Surgical scars

2. The **external ear** is seldom a major problem in the medical certification of applicants. Otitis externa or a furuncle may call for temporary disqualification. Obstruction of the

canal by impacted cerumen or cellular debris may indicate a need for referral to an ENT specialist for examination.

The tympanic membranes should be examined for scars or perforations. Discharge or granulation tissue may be the only observable indication of perforation. Middle ear disease may be revealed by retraction, fluid levels, or discoloration. The normal tympanic membrane is movable and pearly gray in color. Mobility should be demonstrated by watching the drum through the otoscope during a valsalva maneuver.

3. Pathology of the **middle ear** may be demonstrated by changes in the appearance and mobility of the tympanic membrane. The applicant may only complain of stuffiness of the ears and/or loss of hearing. An upper respiratory infection greatly increases the risk of aerotitis media with pain, deafness, tinnitus, and vertigo due to lessened aeration of the middle ear from eustachian tube dysfunction. When the applicant is taking medication for an ENT condition, it is important that the Examiner become fully aware of the underlying pathology, present status, and the length of time the medication has been used. If the condition is not a threat to aviation safety, the treatment consists solely of antibiotics, and the antibiotics have been taken over a sufficient period to rule out the likelihood of adverse side effects, the Examiner may make the certification decision.

The same approach should be taken when considering the significance of prior surgery such as myringotomy, mastoidectomy, or tympanoplasty. Simple perforation without associated symptoms or pathology is not disqualifying. When in doubt, the Examiner should not hesitate to defer issuance and refer the matter to the AMCD. The services of consultant ENT specialists are available to the FAA to help in determining the safety implications of complicated conditions.

4. **Unilateral Deafness.** An applicant with unilateral congenital or acquired deafness should not be denied medical certification if able to pass any of the tests of hearing acuity.

5. **Bilateral Deafness.** It is possible for a totally deaf person to qualify for a private pilot certificate. When such an applicant initially applies for medical certification, if otherwise qualified, the AMCD may issue a combination medical/student pilot certificate with the limitation "Valid for Student Pilot Purposes only." This will allow the student to practice with an instructor before undergoing a pilot check ride for the private pilot's license. When the applicant is ready to take the check ride, he/she must contact AMCD or the RFS for authorization to take a medical flight test (MFT). Upon successful completion of the MFT, the applicant will be issued a SODA, and an operational restriction will be placed on his/her pilot's license that restricts the pilot from flying into airspace requiring radio communication.

6. **Hearing Aids.** Under some circumstances, the use of hearing aids may be acceptable. If the applicant is unable to pass any of the above tests without the use of hearing aids, he or she may be tested using hearing aids.

7. The **nose** should be examined for the presence of polyps, blood, or signs of infection, allergy or substance abuse. The Examiner should determine if there is a history of epistaxis with exposure to high altitudes and if there is any indication of loss of sense of smell (anosmia). Polyps may cause airway obstruction or sinus blockage. Infection or allergy may be cause for obtaining additional history. Anosmia is at least noteworthy in that the airman should be made fully aware of the significance of the handicap in flying (inability to receive early warning of gas spills, oil leaks, or smoke). Further evaluation may be warranted.
8. Evidence of **sinus** disease must be carefully evaluated by a specialist because of the risk of sudden and severe incapacitation from barotrauma.
9. The **mouth and throat** should be examined to determine the presence of active disease that is progressive or may interfere with voice communications. Gross abnormalities that could interfere with the use of personal equipment such as oxygen equipment should be identified.
10. The **larynx** should be visualized if the applicant's voice is rough or husky. Acute laryngitis is temporarily disqualifying. Chronic laryngitis requires further diagnostic workup. Any applicant seeking certification for the first time with a functioning tracheostomy, following laryngectomy, or who uses an artificial voice-producing device should be denied or deferred and carefully assessed.

III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

ITEM 25. HEAD, FACE, NECK, AND SCALP

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Head, Face, Neck, and Scalp			
Active fistula of neck, either congenital or acquired, including tracheostomy	All	Submit all pertinent medical information and current status report	Requires FAA Decision
Loss of bony substance involving the two tables of the cranial vault	All	Submit all pertinent medical information and current status report	Requires FAA Decision
Deformities of the face or head that would interfere with the proper fitting and wearing of an oxygen mask	1 st & 2nd	Submit all pertinent medical information and current status report	Requires FAA Decision
	3rd	Submit all pertinent medical information	If deformity does not interfere with administration of supplemental O ² - Issue

ITEM 26. NOSE

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Nose			
Evidence of severe allergic rhinitis ¹	All	Submit all pertinent medical information and current status report	Requires FAA Decision

¹ Hay fever controlled solely by desensitization without requiring antihistamines or other medications is not disqualifying. Applicants with seasonal allergies requiring antihistamines may be certified by the Examiner with the stipulation that they not exercise privileges of airman certification within 24 hours of experiencing symptoms requiring treatment or within 24 hours after taking an antihistamine. The Examiner should document this in Item 60. However, non-sedating antihistamines loratadine or fexofenadine may be used while flying, after adequate individual experience has determined that the medication is well tolerated without significant side effects.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Nose			
Obstruction of sinus ostia, including polyps, that would be likely to result in complete obstruction	All	Submit all pertinent medical information and current status report	Requires FAA Decision

ITEM 27. SINUSES

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Sinuses - Acute or Chronic			
Sinusitis, intermittent use of topical or non-sedating medication	All	Document medication, dose and absence of side effects	Responds to treatment without any side effects - Issue
Severe-requiring continuous use of medication or effected by barometric changes	All	Submit all pertinent medical information and current status report	Requires FAA Decision
Sinus Tumor			
Benign - Cysts/Polyps	All	If no physiologic effects, submit documentation	Asymptomatic, no observable growth over a 12-month period, no potential for sinus block - Issue
Malignant	All	Submit all pertinent medical information and current status report	Requires FAA Decision

ITEM 28. MOUTH AND THROAT

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Mouth and Throat			
Any malformation or condition, including stuttering, that would impair voice communication	All	Submit all pertinent medical information and current status report	Requires FAA Decision
Palate: Extensive adhesion of the soft palate to the pharynx	All	Submit all pertinent medical information and current status report	Requires FAA Decision

ITEM 29. EARS, GENERAL

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Inner Ear			
Acute or chronic disease without disturbance of equilibrium and successful myringotomy, if applicable	All	Submit all pertinent medical information	If no physiologic effects - Issue
Acute or chronic disease that may disturb equilibrium	All	Submit all pertinent medical information and current status report	Requires FAA Decision
Motion Sickness	All	Submit all pertinent medical information and current status report	If occurred during flight training and resolved - Issue If condition requires medication - Requires FAA Decision

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Mastoids			
Mastoid fistula	All	Submit all pertinent medical information and current status report	Requires FAA Decision
Mastoiditis, acute or chronic	All	Submit all pertinent medical information and current status report	Requires FAA Decision
Middle Ear			
Impaired Aeration	All	Submit all pertinent medical information and current status report	Requires FAA Decision
Otitis Media	All	Submit all pertinent medical information and current status report	If acute and resolved – Issue If active or chronic - Requires FAA Decision
Outer Ear			
Impacted Cerumen	All	Submit all pertinent medical information and current status report	If asymptomatic and hearing is unaffected - Issue Otherwise - Requires FAA Decision
Otitis Externa that may progress to impaired hearing or become incapacitating	All	Submit all pertinent medical information and current status report	Requires FAA Decision

ITEM 30. EAR DRUMS

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Ear Drums			
Perforation that has associated pathology	All	Establish etiology, treatment, and submit all pertinent medical information	Requires FAA Decision
Perforation which has resolved without any other clinical symptoms	All	Submit all pertinent medical information	If no physiologic effects - Issue

Otologic Surgery. A history of otologic surgery is not necessarily disqualifying for medical certification. The FAA evaluates each case on an individual basis following review of the otologist's report of surgery. The type of prosthesis used, the person's adaptability and progress following surgery, and the extent of hearing acuity attained are all major factors to be considered. Examiners should defer issuance to an applicant presenting a history of otologic surgery for the first time, sending the completed report of medical examination, with all available supplementary information, to the AMCD.

Some conditions may have several possible causes or exhibit multiple symptomatology. Episodic disorders of dizziness or disequilibrium require careful evaluation and consideration by the FAA. Transient processes, such as those associated with acute labyrinthitis or benign positional vertigo may not disqualify an applicant when fully recovered. (Also see Item 46, page 99 for a discussion of syncope and vertigo).

ITEMS 31-34. EYE

CHECK EACH ITEM IN APPROPRIATE COLUMN	Normal	Abnormal
31. Eyes, general (vision under Items 50 to 54)		
32. Ophthalmoscopic		
33. Pupils (Equity and reaction)		
34. Ocular motility (Associated parallel movement nystagmus)		

I. Code of Federal Regulations**All Classes: 14 CFR 67.103(e), 67.203(e), and 67.303(d)**

(e) No acute or chronic pathological condition of either the eye or adnexa that interferes with the proper function of the eye, that may reasonably be expected to progress to that degree, or that may reasonably be expected to be aggravated by flying.

II. Examination Techniques

For guidance regarding the conduction of visual acuity, field of vision, heterophoria, and color vision tests, please refer to Chapter 4, Items 50-54, page 129.

The examination of the eyes should be directed toward the discovery of diseases or defects that may cause a failure in visual function while flying or discomfort sufficient to interfere with safely performing airman duties.

The Examiner should personally explore the applicant's history by asking questions concerning any changes in vision, unusual visual experiences (halos, scintillations, etc.), sensitivity to light, injuries, surgery, or current use of medication. Does the applicant report inordinate difficulties with eye fatigue or strain? Is there a history of serious eye disease such as glaucoma or other disease commonly associated with secondary eye changes, such as diabetes? (Also see Item 53, page 138, and Item 54, page 140).

1. It is recommended that the Examiner consider the following signs during the course of the eye examination:

- a. *Color* — redness or suffusion of allergy, drug use, glaucoma, infection, trauma, jaundice, and the green or brown Kayser-Fleischer Ring of Wilson's disease.
- b. *Swelling* — abscess, allergy, cyst, exophthalmos, myxedema, or tumor.
- c. *Other* — clarity, discharge, dryness, ptosis, spasm (tic), tropion, or ulcer.

2. Ophthalmoscopic examination. It is suggested that a routine be established for ophthalmoscopic examinations to aid in the conduct of a comprehensive eye assessment. Routine use of a mydriatic is not recommended.

- a. *Cornea* — observe for abrasions, calcium deposits, contact lenses, dystrophy, keratoconus, pterygium, scars, or ulceration. Contact lenses should be removed several hours before examination of the eye. (See Item 50, page 129).
- b. *Pupils and Iris* — check for the presence of synechiae and uveitis. Size, shape, and reaction to light should be evaluated during the ophthalmoscopic examination. Observe for coloboma, reaction to light, or disparity in size.
- c. *Aqueous* — hyphema or iridocyclitis.
- d. *Lens* — observe for aphakia, discoloration, dislocation, cataract, or an implanted lens.

- e. *Vitreous* — note discoloration, hyaloid artery, floaters, or strands.
- f. *Optic nerve* — observe for atrophy, cupping, or papilledema.
- g. *Retina and choroid* — examine for evidence of coloboma, choroiditis, detachment of the retina, retinitis, retinitis pigmentosa, retinal tumor, senile macular or other degeneration, toxoplasmosis, etc.

3. Ocular Motility. Motility may be assessed by having the applicant follow a point light source with both eyes, the Examiner moving the light into right and left upper and lower quadrants while observing the individual and the conjugate motions of each eye. The Examiner then brings the light to center front and advances it toward the nose observing for convergence. End point nystagmus is a physiologic nystagmus and is not considered to be significant. It need not be reported. (See Item 50, page ?? for further consideration of nystagmus).

4. Monocular Vision. Although it has been repeatedly demonstrated that binocular vision is not a prerequisite for flying, some aspects of depth perception, either by stereopsis or by monocular cues, are necessary. It takes time for the monocular airman to develop the techniques to interpret the monocular cues that substitute for stereopsis; such as, the interposition of objects, convergence, geometrical perspective, distribution of light and shade, size of known objects, aerial perspective, and motion parallax.

In addition, it takes time for the monocular airman to compensate for his or her decrease in effective visual field. A monocular airman's effective visual field is reduced by as much as 30% by monocularity. This is especially important because of speed smear; i.e., the effect of speed diminishes the effective visual field such that normal visual field is decreased from 180 degrees to as narrow as 42 degrees or less as speed increases. A monocular airman's reduced effective visual field would be reduced even further than 42 degrees by speed smear.

Applicants who have had monovision secondary to refractive surgery may be certificated, providing they have corrective vision available that would provide binocular vision in accordance with the vision standards, while exercising the privileges of the certificate. The certificate issued must have the appropriate vision limitations statement.

5. Contact Lenses. Experience has indicated no significant risk to aviation safety in the use of contact lenses for distant vision correction. As a consequence, no special evaluation is routinely required before the use of contact lenses is authorized, and no SODA is required or issued to a contact lens wearer who meets the standards and has no complications.

The use of a contact lens in one eye for distant visual acuity (monovision) and another in the other eye for near or intermediate visual acuity is **not** acceptable for aviation duties.

Designer contact lenses that introduce color (tinted lenses), restrict the field of vision, or significantly diminishes transmitted light, are **not** acceptable.

Bifocal contact lenses or contact lenses that correct for near and/or intermediate vision only are **not** considered acceptable for aviation duties.

6. Glaucoma. The Examiner should deny or defer issuance of a medical certificate to an applicant if there is a loss of visual fields, a significant change in visual acuity, a diagnosis of or treatment for glaucoma, or newly diagnosed intraocular hypertension.

The FAA may grant an Authorization under the special issuance section of part 67 (14 CFR 67.401) on an individual basis. The Examiner can facilitate FAA review by obtaining a report of Ophthalmological Evaluation for Glaucoma (FAA Form 8500-14) from a treating or evaluating ophthalmologist, also see AME assisted protocol for third-class airmen. Because secondary glaucoma is caused by known pathology such as; uveitis or trauma, eligibility must largely depend upon that pathology. Secondary glaucoma is often unilateral, and if the cause or disease process is no longer active and the other eye remains normal certification is likely.

In primary glaucoma, applicants with closed angle, narrow angle, or angle closure are usually denied because of the possibilities of unanticipated acute rise in pressure, severe pain, nausea, transitory loss of accommodative power, blurred vision, halos, epiphora, or iridoparesis. Central venous occlusion can occur with catastrophic loss of vision. However, when surgery such as iridectomy or iridencleisis has been performed satisfactorily more than 3 months before the application, the likelihood of difficulties is considerably more remote, and applicants in that situation may be favorably considered by the FAA.

An applicant with unilateral or bilateral open angle glaucoma may be certified by the FAA (with follow-up required) when a current ophthalmological report substantiates that pressures are under adequate control, there is little or no visual field loss or other complications, and the person tolerates small to moderate doses of allowable medications. A few applicants have been certified following their demonstration of adequate control with oral medication. Neither miotics nor mydriatics are necessarily medically disqualifying.

However, miotics such as pilocarpine cause pupillary constriction and could conceivably interfere with night vision. Although the FAA no longer routinely prohibits pilots who use such medications from flying at night, it may be worthwhile for the Examiner to discuss this aspect of the use of miotics with applicants. If considerable disturbance in night vision is documented, the FAA may limit the medical certificate: NOT VALID FOR NIGHT FLYING

7. Sunglasses. Airmen should be encouraged to use sunglasses in bright daylight but must be cautioned that, under conditions of low illumination, they may compromise vision. Mention should be made that sunglasses do not protect the eyes from the

effects of ultra violet radiation without special glass or coatings and that photosensitive lenses are unsuitable for aviation purposes because they respond to changes in light intensity too slowly. The so-called "blue blockers" may not be suitable since they block the blue light used in many current panel displays. Polarized sunglasses are unacceptable if the windscreen is also polarized.

8. Refractive Surgery. An applicant who has been treated with refractive surgery may be issued a medical certificate by the Examiner if the applicant meets the visual acuity standards and the Report of Eye Evaluation (FAA Form 8500-7) indicates that healing is complete, visual acuity remains stable, and the applicant does not suffer sequela such as; glare intolerance, halos, rings, impaired night vision, etc. This state of recovery is usually reached within 6- to 12-weeks after surgery. The Examiner may, of course, defer issuance and forward the ophthalmology report to the AMCD.

General Information: Applicants with many of the foregoing conditions may be found qualified for FAA certification following the receipt and review of specialty evaluations and pertinent medical records. Examples include retinal detachment with surgical correction, open angle glaucoma under adequate control with medication, and narrow angle glaucoma following surgical correction.

The Examiner may not issue a certificate under such circumstances for the initial application, except in the case of applicants following cataract surgery. The Examiner may issue a certificate after cataract surgery for applicants who have undergone cataract surgery with or without lens(es) implant. If pertinent medical records and a current ophthalmologic evaluation (using FAA Form 8500-7 or FAA Form 8500-14) indicate that the applicant meets the standards, the FAA may delegate authority to the Examiner to issue subsequent certificates.

If there is a question regarding the need for a current specialty evaluation, the Examiner should not obtain the evaluation, but should instead transmit the completed application (FAA Form 8500-8) and forward any available medical records to the AMCD.

III. Aerospace Medical Disposition

Applicants with many conditions may be found qualified for FAA certification following the receipt and review of specialty evaluations and pertinent medical records. Examples include retinal detachment with surgical correction, open angle glaucoma under adequate control with medication, and narrow angle glaucoma following surgical correction.

The Examiner may not issue a certificate under such circumstances for the initial application, except in the case of applicants following cataract surgery. The Examiner may issue a certificate after cataract surgery for applicants who have undergone cataract surgery with or without lens(es) implant. If pertinent medical records and a current ophthalmologic evaluation (using FAA Form 8500-7 or FAA Form 8500-14)

indicate that the applicant meets the standards, the FAA may delegate authority to the Examiner to issue subsequent certificates.

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

ITEM 31. EYES, GENERAL

DISEASE/CONDITION	CLASS	EVALUTION DATA	DISPOSITION
Eyes, General			
Amblyopia ² Initial certification	All	Provide completed FAA Form 8500-7 Note: applicant should be at best corrected visual acuity before evaluation	If applicant does not correct to standards, add the following limitation to the medical certificate: "Valid for Student Pilot Purposes Only", and request a medical flight test
Any ophthalmic pathology reflecting a serious systemic disease (e.g., diabetic and hypertensive retinopathy)	All	Submit all pertinent medical information and current status report. (If applicable, see Diabetes and Hypertensive Protocols)	Requires FAA Decision

² In amblyopia ex anopsia, the visual acuity of one eye is decreased without presence of organic eye disease, usually because of strabismus or anisometropia in childhood.

DISEASE/CONDITION	CLASS	EVALUTION DATA	DISPOSITION
Eyes, General			
Aphakia/Lens Implants	All	Submit all pertinent medical information and current status report (See additional disease dependent requirements)	If visual acuity meets standards - Issue Otherwise - Requires FAA Decision
Diplopia	All	If applicant provides written evidence that the FAA has previously considered and determined that this condition is not adverse to flight safety	Contact RFS for approval to Issue Otherwise - Requires FAA Decision
Hereditary, acquired conditions or congenital ³	All	Provide completed FAA Form 8500-7 Note: applicant should be at best corrected visual acuity before evaluation	Requires FAA Decision
Pterygium	All	Document findings in Item #60	If less than 50% of the cornea and not effecting central vision - Issue Otherwise - Requires FAA Decision
Refractive Surgery	All	Provide completed FAA Form 8500-7, type and date of procedure, statement as to any complications (halo, glare, haze, rings, etc.)	If visual acuity meets standards, is stable, and no complications exist - Issue Otherwise - Requires FAA Decision

³ Whether acute or chronic, of either eye or adnexa, that may interfere with visual functions, may progress to that degree, or may be aggravated by flying (tumors and ptosis obscuring the pupil, acute inflammatory disease of the eyes and lids, cataracts, or orthokeratology).

ITEM 32. OPHTHALMOSCOPIC

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Ophthalmoscopic				
Chorioretinitis; Coloboma; Corneal Ulcer or Dystrophy; Optic Atrophy or Neuritis; Retinal Degeneration or Detachment; Retinitis Pigmentosa; Papilledema; or Uveitis	All	Submit all pertinent medical information and current status report	Requires FAA Decision	
Glaucoma (treated or untreated)	1 st & 2nd	Submit all pertinent medical information and current status report	Requires FAA Decision	
	3rd		INITIAL	FOLLOWUP
			Defer	AASI
Macular Degeneration; Macular Detachment	All	Submit all pertinent medical information and current status report	Requires FAA Decision	
Tumors	All	Submit all pertinent medical information and current status report	Requires FAA Decision	
Vascular Occlusion; Retinopathy	All	Submit all pertinent medical information and current status report	Requires FAA Decision	

ITEM 33. PUPILS

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Pupils			
Disparity in size or reaction to light requires clarification and/or further evaluation	All	Submit all pertinent medical information and current status report	Requires FAA Decision
Nonreaction to light in either eye acute or chronic	All	Submit all pertinent medical information and current status report	Requires FAA Decision
Nystagmus ⁴	All	Submit all pertinent medical information and current status report	Requires FAA Decision
Synechiae, anterior or posterior	All	Submit all pertinent medical information and current status report	Requires FAA Decision

ITEM 34. OCULAR MOTILITY

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Ocular Motility			
Absence of conjugate alignment in any quadrant	All	Submit all pertinent medical information and current status report	Requires FAA Decision

⁴Nystagmus of recent onset is cause to deny or defer certificate issuance. Any recent neurological or other evaluations available to the Examiner should be submitted to the AMCD. If nystagmus has been present for a number of years and has not recently worsened, it is usually necessary to consider only the impact that the nystagmus has upon visual acuity. The Examiner should be aware of how nystagmus may be aggravated by the forces of acceleration commonly encountered in aviation and by poor illumination.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Ocular Motility			
Inability to converge on a near object	All	Submit all pertinent medical information and current status report	Requires FAA Decision
Paralysis with loss of ocular motion in any direction	All	Submit all pertinent medical information and current status report	Requires FAA Decision

ITEM 35. LUNGS AND CHEST

CHECK EACH ITEM IN APPROPRIATE COLUMN	<i>Normal</i>	<i>Abnormal</i>
35. Lungs and chest (Not including breasts examination)		

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds -

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges;

(c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds -

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

Breast examination: The breast examination is performed only at the applicant's option or if indicated by specific history or physical findings. If a breast examination is performed, the results are to be recorded in Item 60 of FAA Form 8500-8. The applicant should be advised of any abnormality that is detected, then deferred for further evaluation.

III. Aerospace Medical Dispositions

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Allergies			
Allergies, severe	All	Submit all pertinent medical information and current status report, include duration of symptoms, name and dosage of drugs and side effects	Requires FAA Decision

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Allergies				
Hay fever controlled solely by desensitization without antihistamines or other medications ⁵¹²	All	Submit all pertinent medical information and current status report, include duration of symptoms, name and dosage of drugs and side effects	If responds to treatment and without side effects - Issue Otherwise - Requires FAA Decision	
Asthma				
Frequent severe asthmatic symptoms	1 st & 2 nd	Submit all pertinent medical information and current status report, include PFT's, duration of symptoms, name and dosage of drugs and side effects	Requires FAA Decision	
	3 rd		INITIAL	FOLLOWUP
			Defer	AASI

⁵ Applicants with seasonal allergies requiring antihistamines may be certified by the Examiner with the stipulation that they not exercise privileges of airman certification within 24 hours of experiencing symptoms requiring treatment or within 24 hours after taking an antihistamine. The Examiner should document this in Item 60, page 149.

⁶ Individuals who have hay fever that requires only occasional seasonal therapy may be certified by the Examiner with the stipulation that they not fly during the time when symptoms occur and treatment is required.

² Nonsedating antihistamines including loratadine, astemizole, or fexofenadine may be used while flying, after adequate individual experience has determined that the medication is well tolerated without significant side effects.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Asthma				
Mild or seasonal asthmatic symptoms ³	All	Submit all pertinent medical information and current status report, include duration of symptoms, name and dosage of drugs and side effects	If attacks are infrequent and no symptoms in flight - Issue	
Chronic Obstructive Pulmonary Disease (COPD)				
Chronic bronchitis, emphysema, or COPD ⁴	1 st & 2 nd	Submit all pertinent medical information and current status report. Include an FVC/FEV1	Requires FAA Decision	
	3rd		INITIAL	FOLLOWUP
			Defer	AASI
Infectious Disease of the Lungs, Pleura, or Mediastinum				
Abscesses	All	Submit all pertinent medical information and current status report	Requires FAA Decision	
Active Mycotic disease				
Active Tuberculosis				
Fistula, Bronchopleural, to include Thoracostomy	All	Submit all pertinent medical information and current status report	Requires FAA Decision	

³ If the applicant otherwise meets the medical standards and currently requires no treatment. A history of frequent severe attacks is disqualifying. Certificate issuance may be possible in other cases. If additional information is obtained, it must be submitted to the FAA.

⁴ Certification may be granted, by the FAA, when the condition is mild without significant impairment of pulmonary functions. If the applicant has frequent exacerbations or any degree of exertional dyspnea, certification should be deferred.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Infectious Disease of the Lungs, Pleura, or Mediastinum				
Lobectomy	All	Submit all pertinent medical information and current status report, include PFT	Requires FAA Decision	
Pulmonary Fibrosis	All	Submit all pertinent medical information, current status report, PFT's with diffusion capacity	If >75% predicted and no impairment - Issue Otherwise - Requires FAA Decision	
Sleep Apnea				
Restless Leg Syndrome Periodic Limb Movement, etc.	1 st & 2 nd	Submit all pertinent medical information and current status report. Include sleep study with a polysomnogram, use of medications and titration study results	Requires FAA Decision	
	3rd		INITIAL	FOLLOWUP
			Defer	AASI
Pleura and Pleural Cavity				
Acute fibrinous pleurisy; Empyema; Pleurisy with effusion; or Pneumonectomy	All	Submit all pertinent medical information and current status report, and PFT's	Requires FAA Decision	
Malignant tumors or cysts of the lung, pleura, mediastinum, or the breast	All	Submit all pertinent medical information and current status report	Requires FAA Decision	

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Pleura and Pleural Cavity			
Other diseases or defects of the lungs or chest wall that require use of medication or that could adversely affect flying or endanger the applicant's well-being if permitted to fly	All	Submit all pertinent medical information and current status report	Requires FAA Decision
Pneumothorax - Traumatic	All	Submit all pertinent medical information and current status report	If 3 months after resolution - Issue
Sarcoid, if more than minimal involvement or if symptomatic	All	Submit all pertinent medical information and current status report	Requires FAA Decision
Spontaneous pneumothorax ⁵	All	Submit all pertinent medical information and current status report	Requires FAA Decision
Pulmonary			
Bronchiectasis	All	Submit all pertinent medical information and current status report	If moderate to severe - Requires FAA Decision

⁵ A history of a single episode of spontaneous pneumothorax is considered disqualifying for airman medical certification until there is x-ray evidence of resolution and until it can be determined that no condition that would be likely to cause recurrence is present (i.e., residual blebs). On the other hand, an individual who has sustained a repeat pneumothorax normally is not eligible for certification until surgical interventions are carried out to correct the underlying problem. A person who has such a history is usually able to resume airmen duties 3 months after the surgery. No special limitations on flying at altitude are applied.

ITEM 36. HEART

CHECK EACH ITEM IN APPROPRIATE COLUMN	Normal	Abnormal
36. Heart (Precordial activity, rhythm, sounds, and murmurs)		

I. Code of Federal Regulations:

First-Class: 14 CFR 67.111(a)(b)(c)

Cardiovascular standards for first-class airman medical certificate are:

(a) No established medical history or clinical diagnosis of any of the following:

- (1) Myocardial infarction
- (2) Angina pectoris
- (3) Coronary heart disease that has required treatment or, if untreated, that has been symptomatic or clinically significant
- (4) Cardiac valve replacement
- (5) Permanent cardiac pacemaker implantation; or
- (6) Heart replacement

(b) A person applying for first-class airman medical certification must demonstrate an absence of myocardial infarction and other clinically significant abnormality on electrocardiographic examination:

- (1) At the first application after reaching the 35th birthday; and
 - (2) On an annual basis after reaching the 40th birthday
- (c) An electrocardiogram will satisfy a requirement of paragraph (b) of this section if it is dated no earlier than 60 days before the date of the application it is to accompany and was performed and transmitted according to acceptable standards and techniques.

Second- and Third-Class: 14 CFR 67.211(a)(b)(c)(d)(e)(f) and 67.311(a)(b)(c)(d)(e)(f)

Cardiovascular standards for a second- and third-class airman medical certificate are no established medical history or clinical diagnosis of any of the following:

- (a) Myocardial infarction

(b) Angina pectoris

(c) Coronary heart disease that has required treatment or, if untreated, that has been symptomatic or clinically significant

(d) Cardiac valve replacement

(e) Permanent cardiac pacemaker implantation; or

(f) Heart replacement

II. Examination Techniques

A. General Physical Examination.

1. A brief description of any comment-worthy personal characteristics as well as height, weight, representative blood pressure readings in both arms, funduscopic examination, condition of peripheral arteries, carotid artery auscultation, heart size, heart rate, heart rhythm, description of murmurs (location, intensity, timing, and opinion as to significance), and other findings of consequence must be provided.

2. The Examiner should keep in mind some of the special cardiopulmonary demands of flight, such as changes in heart rates at takeoff and landing. High G-forces of aerobatics or agricultural flying may stress both systems considerably. Degenerative changes are often insidious and may produce subtle performance decrements that may require special investigative techniques.

a. Inspection. Observe and report any thoracic deformity (e.g., pectus excavatum), signs of surgery or other trauma, and clues to ventricular hypertrophy. Check the hematopoietic and vascular system by observing for pallor, edema, varicosities, stasis ulcers, and venous distention. Check the nail beds for capillary pulsation and color.

b. Palpation. Check for thrills and the vascular system for arteriosclerotic changes, shunts or AV anastomoses. The pulses should be examined to determine their character, to note if they are diminished or absent, and to observe for synchronicity. The medical standards do not specify pulse rates that, per se, are disqualifying for medical certification. These tests are used, however, to determine the status and responsiveness of the cardiovascular system. Abnormal pulse rates may be reason to conduct additional cardiovascular system evaluations.

(1). Bradycardia of less than 50 beats per minute, any episode of tachycardia during the course of the examination, and any other irregularities of pulse other than an occasional ectopic beat or sinus arrhythmia must be noted and reported. If there is bradycardia,

tachycardia, or arrhythmia further evaluation may be warranted and deferral may be indicated.

(2). A cardiac evaluation may be needed to determine the applicant's qualifications. Temporary stresses or fever may, at times, result in abnormal results from these tests. If the Examiner believes this to be the case, the applicant should be given a few days to recover and then be retested. If this is not possible, the Examiner should defer issuance, pending further evaluation.

c. Percussion. Determine heart size, diaphragmatic elevation/excursion, abnormal densities in the pulmonary fields, and mediastinal shift.

d. Auscultation. Check for resonance, asthmatic wheezing, ronchi, rales, cavernous breathing of emphysema, pulmonary or pericardial friction rubs, quality of the heart sounds, murmurs, heart rate, and rhythm. If a murmur is discovered during the course of conducting a routine FAA examination, report its character, loudness, timing, transmission, and change with respiration. It should be noted whether it is functional or organic and if a special examination is needed. If the latter is indicated, the Examiner should defer issuance of the medical certificate and transmit the completed FAA Form 8500-8 to the FAA for further consideration. Listen to the neck for bruits.

It is recommended that the Examiner conduct the auscultation of the heart with the applicant both in a sitting and in a recumbent position.

Aside from murmur, irregular rhythm, and enlargement, the Examiner should be careful to observe for specific signs that are pathognomonic for specific disease entities or for serious generalized heart disease. Examples of such evidence are: (1) the opening snap at the apex or fourth left intercostal space signifying mitral stenosis; (2) gallop rhythm indicating serious impairment of cardiac function; and (3) the middiastolic rumble of mitral stenosis.

B. When General Examinations Reveal Heart Problems.

These specifications have been developed by the FAA to determine an applicant's eligibility for airman medical certification. Standardization of examination methods and reporting is essential to provide sufficient basis for making determinations and the prompt processing of applications.

1. This cardiovascular evaluation, therefore, must be reported in sufficient detail to permit a clear and objective evaluation of the cardiovascular disorder(s) with emphasis on the degree of functional recovery and prognosis. It should be forwarded to the FAA immediately upon completion. Inadequate evaluation, reporting, or failure to promptly submit the report to the FAA may delay the certification decision.

a. Medical History. Particular reference should be given to cardiovascular abnormalities-cerebral, visceral, and/or peripheral. A statement must be included as to whether medications are currently or have been recently used, and if so, the type, purpose, dosage, duration of use, and other pertinent details must be provided. A specific history of any anticoagulant drug therapy is required. In addition, any history of hypertension must be fully developed and if thiazide diuretics are being taken, values for serum potassium should be reported as well as any important or unusual dietary programs.

b. Family, Personal, and Social History. A statement of the ages and health status of parents and siblings is required; if deceased, cause and age at death should be included. Also, any indication of whether any near blood relative has had a "heart attack," hypertension, diabetes, or known disorder of lipid metabolism must be provided. Smoking, drinking, and recreational habits of the applicant are pertinent as well as whether a program of physical fitness is being maintained. Comments on the level of physical activities, functional limitations, occupational, and avocational pursuits are essential.

c. Records of Previous Medical Care. If not previously furnished to the FAA, a copy of pertinent hospital records as well as out-patient treatment records with clinical data, x-ray, laboratory observations, and originals or copies of all electrocardiographic (ECG) tracings should be provided. Detailed reports of surgical procedures as well as cerebral and coronary arteriography and other major diagnostic studies are of prime importance.

d. Surgery. The presence of an aneurysm or obstruction of a major vessel of the body is disqualifying for medical certification of any class. Following successful surgical intervention and correction, the applicant may ask for FAA consideration. The FAA recommends that the applicant recover for at least 3 months for ATCS's and 6 months for airmen.

A history of coronary artery bypass surgery is disqualifying for certification. Such surgery does not negate a past history of coronary heart disease. The presence of permanent cardiac pacemakers and artificial heart valves is also disqualifying for certification.

The FAA will consider an Authorization for a Special Issuance of a Medical Certificate (Authorization) for most cardiac conditions. Applicants seeking further FAA consideration should be prepared to submit all past records and a report of a complete current cardiovascular evaluation in accordance with FAA specifications.

C. Medication.

1. Medications acceptable to the FAA for treatment of hypertension in applicants include all Food and Drug Administration (FDA) approved diuretics, alpha-adrenergic blocking agents, beta-adrenergic blocking agents, calcium channel blocking agents,

angiotension converting enzyme (ACE inhibitors) agents, and direct vasodilators. Centrally acting agents (such as, reserpine, guanethidine, guanadrel, guanabenz, and methyldopa) are usually **not** acceptable to the FAA. Dosage levels should be the minimum necessary to obtain optimal clinical control and should not be modified to influence the certification decision.

2. The Examiner may submit for the Federal Air Surgeon's review requests for Authorization under the special issuance section of part 67 (14 CFR 67.401) in cases in which these or other usually unacceptable medications are used. Specialty evaluations are required in such cases and must provide information on why the specific drug is required. The Examiner's own recommendation should be included. The Examiner must defer issuance of a medical certificate to any applicant whose hypertension is being treated with unacceptable medications. The use of nitrates for the treatment for coronary artery disease or to modify hemodynamics is unacceptable.

The use of flecainide is unacceptable when there is evidence of left ventricular dysfunction or recent myocardial infarction.

III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Arrhythmias			
Bradycardia (<50 bpm)	All	Document history and findings, CVE Protocol, and submit any tests deemed appropriate	If no evidence of structural, functional or coronary heart disease - Issue Otherwise - Requires FAA Decision
Left Bundle Branch Block	All	CVE Protocol and radionuclide GXT scan	If no evidence of structural, functional or coronary heart disease - Issue Otherwise - Requires FAA Decision
Acquired Right Bundle Branch Block	All	CVE Protocol and radionuclide GXT scan	If no evidence of structural, functional or coronary heart disease - Issue Otherwise - Requires FAA Decision
PAC (2 or more on ECG)	All	Requires evaluation, e.g., check for MVP, caffeine, pulmonary disease, thyroid, etc.	If no evidence of structural, functional or coronary heart disease - Issue Otherwise - Requires FAA Decision
PVC's (2 or more on standard ECG)	All	Max GXT – to include a baseline ECG	If no evidence of structural, functional or coronary heart disease and PVC's resolve with exercise - Issue Otherwise - Requires FAA Decision

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Arrhythmias			
1 st Degree AV Block	All	Document history and findings, CVE Protocol, and submit any tests deemed appropriate	If no evidence of structural, functional or coronary heart disease - Issue Otherwise - Requires FAA Decision
2 nd Degree AV Block Mobitz I	All	Document history and findings, CVE Protocol, and submit any tests deemed appropriate	If no evidence of structural, functional or coronary heart disease - Issue Otherwise - Requires FAA Decision
2 nd Degree AV Block Mobitz II	All	CVE Protocol in accordance w/ Hypertensive Evaluation Specifications & 24-hour Holter	Requires FAA Decision
3 rd Degree AV Block	All	CVE Protocol in accordance w/ Hypertensive Evaluation Specifications & 24-hour Holter	Requires FAA Decision
Preexcitation	All	CVE Protocol, GXT, & 24-hour Holter	Requires FAA Decision
RF Ablation	All	3-month wait, then 24-hour Holter	If Holter negative for arrhythmia, no recurrence – Issue Otherwise - Requires FAA Decision

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Atrial Fibrillation				
History of Atrial Fibrillation >5 years ago	All	Document previous workup for CAD & structural heart disease	If no ischemia, no history of emboli, no structural or functional heart disease - Issue Otherwise - Requires FAA Decision	
Chronic	All	CHD Protocol with ECHO & 24-hour Holter	Requires FAA Decision	
Paroxysmal/Lone	1 st & 2 nd	CHD Protocol with ECHO & 24-hour Holter	Requires FAA Decision	
	3 rd		INITIAL	FOLLOWUP
			Defer	AASI
Supraventricular Tachycardia	1 st & 2 nd	CHD Protocol with ECHO & 24-hour Holter	Requires FAA Decision	
	3rd		INITIAL	FOLLOWUP
			Defer	AASI
Syncope	All	CHD Protocol with ECHO & 24-hour Holter; bilat-carotid US * See Neurology Table, page 101	Requires FAA Decision	

NOTE: Syncope, not satisfactorily explained (even though the syncope episode may be medically explained, an aeromedical certification decision may still be precluded) or recurrent requires deferral. Syncope may involve cardiovascular, neurological, and psychiatric factors.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Coronary Heart Disease				
Angina Pectoris	All	See CHD Protocol	Requires FAA Decision	
Myocardial Infarct	All	See CHD Protocol	Requires FAA Decision	
Atherectomy; CABG; PTCA; Rotoblation; or STENT	All	See CHD Protocol and Coronary Intervention Protocol	Requires FAA Decision	
Hypertension				
Hypertension requiring medication		See Hypertension Protocol	If controlled and no complications - Issue Otherwise - Requires FAA Decision	
Valvular Disease				
All Other Valvular Disease	All	CHD Protocol with ECHO	Requires FAA Decision	
Aortic and Mitral Insufficiency	1 st & 2nd	CHD Protocol with ECHO	Requires FAA Decision	
	3rd		INITIAL	FOLLOWUP
			Defer	AASI
Valve Replacement	All	See Valve Replacement Protocol	Requires FAA Decision	
Valvuloplasty	All	See Valvuloplasty Protocol	Requires FAA Decision	

Other Cardiac Conditions

The following conditions must be deferred:

1. Heart Transplant – at the present time, due to the unpredictability of segmental coronary artery disease, certification is not being granted.
2. Cardiac decompensation.
3. Congenital heart disease accompanied by cardiac enlargement, ECG abnormality, or evidence of inadequate oxygenation.
4. Hypertrophy or dilatation of the heart as evidenced by clinical examination and supported by diagnostic studies.
5. Pericarditis, endocarditis, or myocarditis.
6. When cardiac enlargement or other evidence of cardiovascular abnormality is found, the decision is deferred to AMCD or RFS. If the applicant wishes further consideration, a consultation will be required "preferably" from the applicant's treating physician. It must include a narrative report of evaluation and be accompanied by an ECG with report and appropriate laboratory test results which may include, as appropriate, 24-hour Holter monitoring, thyroid function studies, ECHO, and an assessment of coronary artery status. The report and accompanying materials should be forwarded to the AMCD or RFS.
7. Anti-tachycardia devices or implantable defibrillators.
8. With the possible exceptions of aspirin and dipyridamole taken for their effect on blood platelets the use of anticoagulants, or other drugs for treatment or prophylaxis of fibrillation, may preclude medical certification.
9. A history of cardioversion or drug treatment, *per se*, does not rule out certification. A current, complete cardiovascular evaluation will be required. A 3-month observation period must elapse after the procedure before consideration for certification.
10. Any other cardiac disorder not otherwise covered in this section.

For all classes, certification decisions will be based on the applicant's medical history and current clinical findings. Certification is unlikely unless the information is highly favorable to the applicant. Evidence of extensive multi-vessel disease, impaired cardiac functioning, precarious coronary circulation, etc., will preclude certification. Before an applicant undergoes coronary angiography, it is recommended that all records and the report of a current cardiovascular evaluation, including a maximal electrocardiographic exercise stress test, be submitted to the FAA for preliminary review. Based upon this information, it may be possible to advise an applicant of the likelihood of favorable consideration.

A history of low blood pressure requires elaboration. If the Examiner is in doubt, it is usually better to defer issuance rather than to deny certification for such a history.

ITEM 37. VASCULAR SYSTEM

CHECK EACH ITEM IN APPROPRIATE COLUMN	Normal	Abnormal
37. Vascular System		

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds —

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges;

(c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds-

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

1. Inspection. Observe and report any thoracic deformity (e.g., pectus excavatum), signs of surgery or other trauma, and clues to ventricular hypertrophy. Check the hematopoietic and vascular system by observing for pallor, edema, varicosities, stasis ulcers, venous distention, nail beds for capillary pulsation, and color.

2. Palpation. Check for thrills and the vascular system for arteriosclerotic changes, shunts or AV anastomoses. The pulses should be examined to determine their character, to note if they are diminished or absent, and to observe for synchronicity.

3. Percussion. N/A.
4. Auscultation. Check for bruits and thrills.

III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITIONS	CLASS	EVALUATION DATA	DISPOSITION
Vascular Conditions			
Aneurysm (Abdominal or Thoracic)	All	Submit all available medical documentation	Requires FAA Decision
Aneurysm (Status Post Repair)	All	Submit all documentation in accordance with CVE Protocol, and include a GXT	Requires FAA Decision
Arteriosclerotic Vascular disease with evidence of circulatory obstruction	All	Submit all documentation in accordance with CVE Protocol, and include a GXT	Requires FAA Decision
Buerger's Disease	All	Document history and findings	If no impairment and no symptoms in flight -Issue Otherwise - Requires FAA Decision

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Vascular Conditions			
Peripheral Edema	All	The underlying medical condition must not be disqualifying	<p>If findings can be explained by normal physiologic response or secondary to medication(s) - Issue</p> <p>Otherwise – Requires FAA Decision</p>
Raynaud's Disease	All	Document history and findings	<p>If no impairment - Issue</p> <p>Otherwise - Requires FAA Decision</p>
Phlebothrombosis or Thrombophlebitis	1 st & 2nd	See Thrombophlebitis Protocol	Requires FAA Decision
	3rd	<p>Document history and findings</p> <p>Document history and findings. See Thrombophlebitis Protocol</p>	<p>A single episode resolved, not currently treated with anticoagulants, and a negative evaluation - Issue</p> <p>If history of multiple episodes - Requires FAA Decision</p>

ITEM 38. ABDOMEN AND VISCERA

CHECK EACH ITEM IN APPROPRIATE COLUMN	Normal	Abnormal
38. Abdomen and viscera (including hernia)		

The digital rectal examination is performed only at the applicant's option or if indicated by specific history or physical findings. If a digital examination is performed, the results are to be recorded in Item 59 of FAA Form 8500-8.

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds-

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds -

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

1. Observation: The Examiner should note any unusual shape or contour, skin color, moisture, temperature, and presence of scars. Hernias, hemorrhoids, and fissure should be noted and recorded.

A history of acute gastrointestinal disorders is usually not disqualifying once recovery is achieved, e.g., acute appendicitis.

Many chronic gastrointestinal diseases may preclude issuance of a medical certificate (e.g., cirrhosis, chronic hepatitis, malignancy, ulcerative colitis). Colostomy following surgery for cancer may be allowed by the FAA with special followup reports.

The Examiner should not issue a medical certificate if the applicant has a recent history of bleeding ulcers or hemorrhagic colitis. Otherwise, ulcers must not have been active within the past 3 months.

In the case of a history of bowel obstruction, a report on the cause and present status of the condition must be obtained from the treating physician.

2. Palpation: The Examiner should check for and note enlargement of organs, unexplained masses, tenderness, guarding, and rigidity.

III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Abdomen and Viscera and Anus Conditions				
Cholelithiasis	All	Document history and findings	If asymptomatic - Issue Otherwise - Requires FAA Decision	
Cirrhosis (Alcoholic)	All	See Substance Abuse/Dependence Disposition in Item 47, page 116	Requires FAA Decision	
Cirrhosis (Non-Alcoholic)	All	Submit all pertinent medical records, current status report, to include history of encephalopathy; PT/PTT; albumin; liver enzymes; bilirubin; CBC; and other testing deemed necessary	Requires FAA Decision	
Hepatitis	All	Submit all pertinent medical records, current status report to include any other testing deemed necessary	If disease is resolved without sequela - Issue Otherwise - Requires FAA Decision	
Hepatitis C	1 st & 2 nd	Submit all pertinent medical information and current status report, include duration of symptoms, name and dosage of drugs and side effects	Requires FAA Decision	
	3rd		INITIAL	FOLLOWUP
			Defer	AASI

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Abdomen and Viscera and Anus Conditions				
Inguinal, Ventral or Hiatal Hernia	All	Document history and findings	If symptomatic; likely to cause any degree of obstruction - Requires FAA Decision Otherwise - Issue	
Liver Transplant	All	Submit all pertinent medical information and current status report, include duration of symptoms, name and dosage of drugs and side effects	Requires FAA decision	
Splenomegaly	All	Provide hematologic workup	Requires FAA Decision	
Malignancies				
Colitis (Ulcerative, Regional Enteritis or Crohn's disease)	1 st & 2nd	Submit all pertinent medical information and current status report, include duration of symptoms, name and dosage of drugs and side effects	Requires FAA Decision	
	3rd		INITIAL	FOLLOWUP
			Defer	AASI
Colon/Rectal Cancer	1 st & 2nd	Submit all pertinent medical records, operative/ pathology reports, current oncological status report; and current CEA and CBC	Requires FAA Decision	

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Malignancies			
Other Malignancies	All	Submit all pertinent medical records, operative/ pathology reports, current oncological status report, including tumor markers, and any other testing deemed necessary	Requires FAA Decision
Peptic Ulcer	All	See Peptic Ulcer Protocol	See Peptic Ulcer Protocol

An applicant with an ileostomy or colostomy may also receive FAA consideration. A report is necessary to confirm that the applicant has fully recovered from the surgery and is completely asymptomatic.

In the case of a history of bowel obstruction, a report on the cause and present status of the condition must be obtained from the treating physician.

ITEM 39. Anus

CHECK EACH ITEM IN APPROPRIATE COLUMN	Normal	Abnormal
39 Anus (Not including digital examination)		

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(a), 67.213(b)(c), and 67.313(b)(c)

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds-

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds -

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

1. Digital Rectal Examination: This examination is performed only at the applicant's option unless indicated by specific history or physical findings. When performed, the following should be noted and recorded in Item 59 of FAA Form 8500-8.

2. If the digital rectal examination is not performed, the response to Item 39 may be based on direct observation or history.

ITEM 40. SKIN

CHECK EACH ITEM IN APPROPRIATE COLUMN	NORMAL	ABNORMAL
40. Skin		

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds-

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds-

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

A careful examination of the skin may reveal underlying systemic disorders of clinical importance. For example, thyroid disease may produce changes in the skin and fingernails. Cushing's disease may produce abdominal striae, and abnormal pigmentation of the skin occurs with Addison's disease.

Needle marks that suggest drug abuse should be noted and body marks and scars should be described and correlated with known history. Further history should be obtained as needed to explain findings.

III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Cutaneous			
Dermatomyositis; Deep Mycotic Infections; Eruptive Xanthomas; Hansen's Disease; Lupus Erythematosus; Raynaud's Phenomenon; Sarcoid; or Scleroderma	All	Submit all pertinent medical information and current status report	Requires FAA Decision
Kaposi's Sarcoma	All	Submit all pertinent medical information and current status report. See HIV Protocol	Requires FAA Decision
Malignant Melanoma			
Melanoma Breslow Level >.75 mm with/without any metastasis	All	Submit all pertinent medical records, operative/ pathology reports, and current oncological status report, and current MRI of the brain	Requires FAA Decision

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Malignant Melanoma			
Melanoma of Unknown Primary Origin	All	Submit all pertinent medical records, operative/ pathology reports, and current oncological status report, current MRI of the brain; PET scan if no primary	Requires FAA Decision
Neurofibromatosis with Central Nervous System Involvement	All	Submit all pertinent medical information and current status medical report	Requires FAA Decision
Urticarial Eruptions			
Angioneurotic Edema	All	Submit all pertinent medical records and a current status report to include treatment	Requires FAA Decision
Chronic Urticaria	All	Submit all records and a current status report to include treatment	Requires FAA Decision

ITEM 41. G-U SYSTEM

CHECK EACH ITEM IN APPROPRIATE COLUMN	NORMAL	ABNORMAL
41. G-U system (Not including pelvic examination)		

NOTE: The pelvic examination is performed only at the applicant's option or if indicated by specific history or physical findings. If a pelvic examination is performed, the results are to be recorded in Item 60 of FAA Form 8500-8.

I. Code of Federal Regulations**All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)**

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds -

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds-

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

The Examiner should observe for discharge, inflammation, skin lesions, scars, strictures, tumors, and secondary sexual characteristics. Palpation for masses and areas of tenderness should be performed. The pelvic examination is performed only at the applicant's option or if indicated by specific history or physical findings. If a pelvic examination is performed, the results are to be recorded in Item 60 of FAA Form 8500-8. Disorders such as sterility and menstrual irregularity are not usually of importance in qualification for medical certification. Specialty evaluations may be indicated by history or by physical findings on the routine examination. A personal history of urinary symptoms is important; such as:

1. Pain or burning upon urination
2. Dribbling or Incontinence
3. Polyuria, frequency, or nocturia
4. Hematuria, pyuria, or glycosuria

Special procedures for evaluation of the G-U system should best be left to the discretion of an urologist, nephrologist, or gynecologist.

III. Aerospace Medical Disposition

(See Item 48, page 119, for details concerning diabetes and Item 57, page 144, for other information related to the examination of urine).

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
General Disorders			
Congenital lesions of the kidney	All	Submit all pertinent medical information and status report	<p>If the applicant has an ectopic, horseshoe kidney, unilateral agenesis, hypoplastic, or dysplastic and is asymptomatic – Issue</p> <p>Otherwise – Requires FAA Decision</p>

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
General Disorders			
Cystostomy and Neurogenic bladder	All	Requires evaluation, report must include etiology, clinical manifestation and treatment plan	Requires FAA Decision
Renal Dialysis	All	Submit a current status report, all pertinent medical reports to include etiology, clinical manifestation, BUN, Ca, PO ⁴ , Creatinine, electrolytes, and treatment plan	Requires FAA Decision
Renal Transplant	All	See Renal Transplant Protocol	Requires FAA Decision
Inflammatory Conditions			
Acute (Nephritis)	All	Submit all pertinent medical information and status report	If > 3 mos. ago, resolved, no sequela, or indication of reoccurrence - Issue Otherwise - Requires FAA Decision
Chronic (Nephritis)	All	Submit all pertinent medical information and status report	Requires FAA Decision
Nephrosis	All	Submit all pertinent medical information and status report	Requires FAA Decision

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Neoplastic Disorders				
Bladder	All	Submit a current status report, all pertinent medical reports to include staging, metastatic work up and operative report if applicable	Requires FAA Decision	
Other Neoplastic Disorders	All	Submit a current status report, all pertinent medical reports to include staging, metastatic work up and operative report if applicable	Requires FAA Decision	
Prostatic Carcinoma	1 st & 2 nd	Submit a current status report, all pertinent medical reports to include staging, PSA, metastatic workup and operative report, if applicable, and treatment	Requires FAA Decision	
Prostatic Carcinoma	3rd	Submit a current status report, all pertinent medical reports to include staging, PSA, metastatic workup and operative report, if applicable, and treatment	INITIAL	FOLLOWUP
			Defer	AASI
Renal	All	Submit a current status report, all pertinent medical reports, include staging, metastatic workup, & operative report if applicable	Requires FAA Decision	

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Nephritis			
Polycystic Kidney Disease	All	Submit all pertinent medical information and status report	If renal function is normal and no hypertension - Issue Otherwise - Requires FAA Decision
Pyelitis or Pyelonephritis	All	Submit all pertinent medical information and status report	If asymptomatic - Issue Otherwise - Requires FAA Decision
Pyonephrosis	All	Submit all pertinent medical information and status report	Requires FAA Decision
Urinary System			
Hydronephrosis with impaired renal function	All	Submit all pertinent medical information and status report	Requires FAA Decision
Nephrectomy (non-neoplastic)	All	Submit all pertinent medical information and status report	If the remaining kidney function and anatomy is normal, without other systemic disease, hypertension, uremia, infection of the remaining kidney - Issue Otherwise - Requires FAA Decision
Nephrocalcinosis	All	Submit all pertinent medical information and status report	If calculus is not in collecting system or renal pelvis - Issue Otherwise - Requires FAA Decision

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Urinary System				
Calculus ¹¹ Renal - Single episode	All	Submit current metabolic evaluation and status report	If there is no residual calculi and the metabolic workup is negative - Issue Otherwise - Requires FAA Decision	
Renal - Multiple episodes For Third-Class Only – Single and Multiple episodes	1 st & 2 nd	Submit current metabolic evaluation and status report	Requires FAA Decision	
	3 rd		INITIAL	FOLLOWUP
			Defer	AASI
Ureteral or Vesical	All	Single episode and no retained calculi, submit current metabolic evaluation and status report (Ureteral stent is acceptable if functioning without sequela)	If metabolic workup is negative and there is no sequela or retained calculi - Issue Otherwise - Requires FAA Decision	

A history of recent or significant hematuria requires further evaluation.

GENITAL/REPRODUCTIVE SYSTEM

Pregnancy under normal circumstances is not disqualifying. It is recommended that the applicant's obstetrician be made aware of all aviation activities so that the obstetrician can properly advise the applicant. The Examiner may wish to counsel applicants concerning piloting aircraft during the third trimester, and the proper use of lap belt and shoulder harness warrants discussion.

¹¹ Complete studies to determine the possible etiology and prognosis are essential to favorable FAA consideration. Determining factors include site and location of the stones, complications such as compromise in renal function, repeated bouts of kidney infection, and need for therapy. Any underlying disease will be considered. The likelihood of sudden incapacitating symptoms is of primary concern. Report of imaging studies (KUB, IVP, or spiral CT) must be submitted in order to conclude that there are no residual or retained calculi.

Use of Oral or Repository Contraceptives or Hormonal Replacement Therapy are not disqualifying for medical certification. If the applicant is experiencing no adverse symptoms or reactions to cyclic hormones and is otherwise qualified, the Examiner may issue the desired certificate.

Gender dysphoria and gender reassignment are not disqualifying, however, a complete review of the medical history and records is indicated to determine that there is no medical, psychiatric or psychological condition that is considered disqualifying. Medical disqualification is considered appropriate during the time of hormonal manipulation until such time where there is a stabilization of the dose administered and the physiologic response. Defer and submit a current status report and all pertinent medical reports to AMCD or RFS.

ITEMS 42-43. MUSCULOSKELETAL

CHECK EACH ITEM IN APPROPRIATE COLUMN	NORMAL	ABNORMAL
42. Upper and lower extremities (Strength and range of motion)		
43. Spine, other musculoskeletal		

I. Code of Federal Regulations

All Classes: 14 CFR 67.113 (b)(c), 67.213 (b)(c), and 67.313 (b)(c)

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved finds -

- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds -

- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

Standard examination procedures should be used to make a gross evaluation of the integrity of the applicant's musculoskeletal system. The Examiner should note:

1. Pain - neuralgia, myalgia, paresthesia, and related circulatory and neurological findings.
2. Weakness - local or generalized; degree and amount of functional loss.
3. Paralysis - atrophy, contractures, and related dysfunctions.
4. Motion coordination, tremors, loss or restriction of joint motions, and performance degradation.
5. Deformity - extent and cause.
6. Amputation - level, stump healing, and phantom pain.
7. Prostheses - comfort and ability to use effectively.

III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

ITEM 42. UPPER AND LOWER EXTREMITIES

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Upper and Lower Extremities			
Amputations	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports	<p>If applicant has a SODA issued on the basis of the amputation - Issue</p> <p>Otherwise - Requires FAA Decision</p> <p>After review of all medical data, the FAA may authorize a special medical flight test</p>
Atrophy of any muscles that is progressive, Deformities, either congenital or acquired, or Limitation of motion of a major joint, that are sufficient to interfere with the performance of airman duties	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medication with side effects, and all pertinent medical reports	Requires FAA Decision

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Upper and Lower Extremities			
Neuralgia or Neuropathy, chronic or acute, particularly sciatica, if sufficient to interfere with function or is likely to become incapacitating	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports	Requires FAA Decision
Osteomyelitis, acute or chronic, with or without draining fistula(e)	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports	Requires FAA Decision
Tremors, if sufficient to interfere with the performance of airman duties ¹²	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports	Requires FAA Decision

¹² Essential tremor is not disqualifying unless it is disabling.

For all the above conditions: If the applicant is otherwise qualified, the FAA may issue a limited certificate. This certificate will permit the applicant to proceed with flight training until ready for a MFT. At that time, at the applicant's request, the FAA (usually the AMCD) will authorize the student pilot to take a MFT in conjunction with the regular flight test. The MFT and regular private pilot flight test are conducted by an FAA inspector. This affords the student an opportunity to demonstrate the ability to control the aircraft despite the handicap. The FAA inspector prepares a written report and indicates whether there is a safety problem. A medical certificate and SODA, without the student limitation, may be provided to the inspector for issuance to the applicant, or the inspector may be required to send the report to the FAA medical officer who authorized the test.

When prostheses are used or additional control devices are installed in an aircraft to assist the amputee, those found qualified by special certification procedures will have their certificates limited to require that the devices (and, if necessary, even the specific aircraft) must always be used when exercising the privileges of the airman certificate.

Item 43. SPINE, OTHER MUSCULOSKELETAL

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Arthritis			
Osteoarthritis ¹³	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports	If mild and controlled with small doses of nonprescription agents - Issue If symptomatic or requires medication - Requires FAA Decision

¹³ Arthritis (if it is symptomatic or requires medication, other than small doses of nonprescription anti-inflammatory agents), is disqualifying unless the applicant holds a letter from the FAA specifically authorizing the Examiner to issue the certificate when the applicant is found otherwise qualified. Although the use of many medications on a continuing basis ordinarily contraindicates the performance of pilot duties, under certain circumstances, certification is possible for an applicant who is taking aspirin, ibuprofen, naproxen, similar nonsteroidal anti-inflammatory drugs (NSAID), or COX-2 inhibitors. If the applicant presents evidence documenting that the underlying condition for which the medicine is being taken is not in itself disabling and the applicant has been on therapy (NSAID) long enough to have established that the medication is well tolerated and has not produced adverse side effects, the Examiner may issue a certificate.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Arthritis				
Rheumatoid Arthritis and Variants	1 st & 2 nd	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports	Requires FAA Decision	
	3rd		INITIAL	FOLLOWUP
			Defer	AASI
Collagen Disease				
Acute Polymyositis; Dermatomyositis; Lupus Erythematosus; or Periarteritis Nodosa	All	Submit a current status report to include functional status, frequency and severity of episodes, organ systems effected, medications with side effects and all pertinent medical reports	Requires FAA Decision	

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Spine, other musculoskeletal			
Active disease of bones and joints	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports	Requires FAA Decision
Ankylosis, curvature, or other marked deformity of the spinal column sufficient to interfere with the performance of airman duties	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports	Requires FAA Decision

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Spine, other musculoskeletal			
Intervertebral Disc Surgery	All	See Footnote¹⁴	See Footnote¹⁴
Musculoskeletal effects of: Cerebral Palsy, Muscular Dystrophy Myasthenia Gravis, or Myopathies	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports	Requires FAA Decision
Other disturbances of musculoskeletal function, acquired or congenital, sufficient to interfere with the performance of airman duties or likely to progress to that degree	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports	Requires FAA Decision

¹⁴A history of intervertebral disc surgery is not disqualifying. If the applicant is asymptomatic, has completely recovered from surgery, is taking no medication, and has suffered no neurological deficit, the Examiner should confirm these facts in a brief statement in Item 60. The Examiner may then issue any class of medical certificate, providing that the individual meets all the medical standards for that class.

The paraplegic whose paralysis is not the result of a progressive disease process is considered in much the same manner as an amputee. The Examiner should defer issuance and may advise the applicant to request further FAA consideration. The applicant may be authorized to take a MFT along with the private pilot certificate flight test. If successful, the limitation VALID FOR STUDENT PILOT PURPOSES ONLY is removed from the medical certificate, but operational limitations may be added. A statement of demonstrated ability is issued.

Other neuromuscular conditions are covered in more detail in Item 46, page 99.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Spine, other musculoskeletal			
Symptomatic herniation of intervertebral disc	All	Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports	Requires FAA Decision

ITEM 44. IDENTIFYING BODY MARKS, SCARS, TATTOOS

CHECK EACH ITEM IN APPROPRIATE COLUMN	NORMAL	ABNORMAL
44. Identifying body marks, scars, tattoos (Size and location)		

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(b), 67.213(b), and 67.313(b)

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition finds-

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges

II. Examination Techniques

A careful examination for surgical and other scars should be made, and those that are significant (the result of surgery or that could be useful as identifying marks) should be described. Tattoos should be recorded because they may be useful for identification.

III. Aerospace Medical Disposition

The Examiner should question the applicant about any surgical scars that have not been previously addressed, and document the findings in Item 60 of FAA Form 8500-8. Medical certificates must not be issued to applicants with medical conditions that require deferral without consulting the AMCD or RFS. Medical documentation must be submitted for any condition in order to support an issuance of a medical certificate.

Disqualifying Condition: Scar tissue that involves the loss of function, which may interfere with the safe performance of airman duties.

ITEM 45. LYMPHATICS

CHECK EACH ITEM IN APPROPRIATE COLUMN	NORMAL	ABNORMAL
45. Lymphatics		

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds -

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds -

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

A careful examination of the lymphatic system may reveal underlying systemic disorders of clinical importance. Further history should be obtained as needed to explain findings.

III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Hodgkin's Disease – Lymphoma				
Hodgkin's Disease - Lymphoma	All	Submit a current status report and all pertinent medical reports. Include past and present treatment(s).	Requires FAA Decision	
	3rd		INITIAL	FOLLOWUP
			Defer	AASI
Leukemia, Acute and Chronic – All Types (except Chronic Lymphocytic Leukemia for Third-Class)				
Leukemia, Acute and Chronic - All Types (except Chronic Lymphocytic Leukemia for Third-Class)	1 st & 2nd	Submit a current status report and all pertinent medical reports	Requires FAA Decision	
	3rd		INITIAL	FOLLOWUP
			Defer	AASI

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Lymphatics			
Adenopathy secondary to Systemic Disease or Metastasis	All	Submit a current status report and all pertinent medical reports	Requires FAA Decision
Lymphedema	All	Submit a current status report and all pertinent medical reports. Note if there are any motion restrictions of the involved extremity	Requires FAA Decision
Lymphosarcoma	All	Submit a current status report and all pertinent medical reports. Include past and present treatment(s).	Requires FAA Decision

ITEM 46. NEUROLOGIC

CHECK EACH ITEM IN APPROPRIATE COLUMN	NORMAL	ABNORMAL
46. NEUROLOGIC		

I. Code of Federal Regulations**All Classes: 14 CFR 67.109 (a)(b), 67.209 (a)(b), and 67.309 (a)(b)**

(a) No established medical history or clinical diagnosis of any of the following:

(1) Epilepsy

(2) A disturbance of consciousness without satisfactory medical explanation of the cause; or

(3) A transient loss of control of nervous system function(s) without satisfactory medical explanation of the cause;

(b) No other seizure disorder, disturbance of consciousness, or neurologic condition that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds-

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

A neurologic evaluation should consist of a thorough review of the applicant's history prior to the neurological examination. The Examiner should specifically inquire concerning a history of weakness or paralysis, disturbance of sensation, loss of coordination, or loss of bowel or bladder control. Certain laboratory studies, such as scans and imaging procedures of the head or spine, electroencephalograms, or spinal paracentesis may suggest significant medical history. The Examiner should note conditions identified in Item 60 on the application with facts, such as dates, frequency, and severity of occurrence.

A history of simple headaches without sequelae is not disqualifying. Some require only temporary disqualification during periods when the headaches are likely to occur or require treatment. Other types of headaches may preclude certification by the Examiner and require special evaluation and consideration (e.g., migraine and cluster headaches).

One or two episodes of dizziness or even fainting may not be disqualifying. For example, dizziness upon suddenly arising when ill is not a true dysfunction. Likewise, the orthostatic faint associated with moderate anemia is no threat to aviation safety as long as the individual is temporarily disqualified until the anemia is corrected.

An unexplained disturbance of consciousness is disqualifying under the medical standards. Because a disturbance of consciousness may be expected to be totally incapacitating, individuals with such histories pose a high risk to safety and must be denied or deferred by the Examiner. If the cause of the disturbance is explained and a loss of consciousness is not likely to recur, then medical certification may be possible.

The basic neurological examination consists of an examination of the 12 cranial nerves, motor strength, superficial reflexes, deep tendon reflexes, sensation, coordination, mental status, and includes the Babinski reflex and Romberg sign. The Examiner should be aware of any asymmetry in responses because this may be evidence of mild or early abnormalities. The Examiner should evaluate the visual field by direct confrontation or, preferably, by one of the perimetry procedures, especially if there is a suggestion of neurological deficiency.

III. Aerospace Medical Disposition

A history or the presence of any neurological condition or disease that potentially may incapacitate an individual should be regarded as initially disqualifying. Issuance of a medical certificate to an applicant in such cases should be denied or defer, pending further evaluation. A convalescence period following illness or injury may be advisable to permit adequate stabilization of an individual's condition and to reduce the risk of an adverse event. Applications from individuals with potentially disqualifying conditions should be forwarded to the FAA. Processing such applications can be expedited by including hospital records, consultation reports, and appropriate laboratory and imaging studies, if available. Symptoms or disturbances that are secondary to the underlying condition and that may be acutely incapacitating include pain, weakness, vertigo or incoordination, seizures or a disturbance of consciousness, visual disturbance, or mental confusion. Chronic conditions may be incompatible with safety in aircraft operation because of long-term unpredictability, severe neurologic deficit, or psychological impairment.

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Cerebrovascular Disease (including the brain stem) ¹⁵			
Cerebral Thrombosis; Intracerebral or Subarachnoid Hemorrhage Transient Ischemic Attack (TIA);	All	Submit all pertinent medical records, current neurologic report, to include CHD Protocol, Brain MRI, Bilat Carotid US, name and dosage of medication(s) and side-effects	Requires FAA Decision
Intracranial Aneurysm or Arteriovenous Malformation	All	Submit all pertinent medical records, current neurologic report, name and dosage of medication(s) and side-effects	Requires FAA Decision

¹⁵ Complete neurological evaluations supplemented with appropriate laboratory and imaging studies are required of applicants with the above conditions. Cerebral arteriography may be necessary for review in cases of subarachnoid hemorrhage.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Cerebrovascular Disease (including the brain stem)			
Intracranial Tumor ¹⁶	All	Submit all pertinent medical records, current neurologic report, name and dosage of medication(s) and side-effects	Requires FAA Decision
Pseudotumor Cerebri (benign intracranial hypertension)	All	Submit all pertinent medical records, current neurologic report, name and dosage of medication(s) and side-effects	Requires FAA Decision

¹⁶ A variety of intracranial tumors, both malignant and benign, are capable of causing incapacitation directly by neurologic deficit or indirectly through recurrent symptomatology. Potential neurologic deficits include weakness, loss of sensation, ataxia, visual deficit, or mental impairment. Recurrent symptomatology may interfere with flight performance through mechanisms such as seizure, headaches, vertigo, visual disturbances, or confusion. A history or diagnosis of an intracranial tumor necessitates a complete neurological evaluation with appropriate laboratory and imaging studies before a determination of eligibility for medical certification can be established. An applicant with a history of benign supratentorial tumors may be considered favorably for medical certification by the FAA and returned to flying status after a minimum satisfactory convalescence of 1 year.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Demyelinating Disease¹⁷			
Acute Optic Neuritis; Allergic Encephalomyelitis; Landry-Guillain-Barre Syndrome; Myasthenia Gravis; or Multiple Sclerosis	All	Submit all pertinent medical records, current neurologic report, to comment on involvement and persisting deficit, period of stability without symptoms, name and dosage of medication(s) and side-effects	Requires FAA Decision

¹⁷Factors used in determining eligibility will include the medical history, neurological involvement and persisting deficit, period of stability without symptoms, type and dosage of medications used, and general health. A neurological and/or general medical consultation will be necessary in most instances.

Extrapyramidal, Hereditary, and Degenerative Diseases of the Nervous System¹⁸			
Dystonia Musculorum Deformans; Huntington's Disease; Parkinson's Disease; Wilson's Disease; or Gilles de la Tourette Syndrome; Alzheimer's Disease; Dementia (unspecified); or Slow viral diseases i.e., Creutzfeldt-Jakob's Disease	All	Obtain medical records and current neurological status, complete neurological evaluation with appropriate laboratory and imaging studies, as indicated May consider Neuropsychological testing	Requires FAA Decision

¹⁸ Extrapyramidal, Hereditary, and Degenerative Diseases of the Nervous System: Considerable variability exists in the severity of involvement, rate of progression, and treatment of the above conditions. A complete neurological evaluation with appropriate laboratory and imaging studies, including information specifically on the factors below, will be necessary for determination of eligibility for medical certification.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Headaches				
Atypical Facial Pain	All	Submit all pertinent medical records, current neurologic report, to include name and dosage of medication(s) and side-effects	Requires FAA Decision	
Chronic Tension or Cluster Headaches	All	Submit all pertinent medical records, current neurologic report, to include characteristics, frequency, severity, associated with neurologic phenomena, name and dosage of medication(s) and side-effects	Requires FAA Decision	
Migraines	1 st & 2 nd	Submit all pertinent medical records, current neurologic report, to include characteristics, frequency, severity, associated with neurologic phenomena, and name and dosage of medication(s) and side-effects	Requires FAA Decision	
	3rd		INITIAL	FOLLOWUP
			Defer	AASI
Post-traumatic Headache	All	Submit all pertinent medical records, current neurologic report, name and dosage of medication(s) and side-effects	Requires FAA Decision	

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Hydrocephalus and Shunts			
Hydrocephalus, secondary to a known injury or disease process; or normal pressure	All	Submit all pertinent medical records, current neurologic report, to include name and dosage of medication(s) and side-effects	Requires FAA Decision
Infections of the Nervous System			
Brain Abscess; Encephalitis; Meningitis; and Neurosyphilis	All	Complete neurological evaluation with appropriate laboratory and imaging studies	Requires FAA Decision
Neurologic Conditions			
A disturbance of consciousness without satisfactory medical explanation of the cause	All	Submit all pertinent medical records, current neurologic report, to include name and dosage of medication(s) and side-effects	Requires FAA Decision

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Neurologic Conditions			
Epilepsy ¹⁹	All	Submit all pertinent medical records, current status report, to include name and dosage of medication(s) and side-effects	Requires FAA Decision
Febrile Seizure ²⁰ (Single episode)	All	Submit all pertinent medical records and a current status report	If occurred prior to age 5, without recurrence and off medications for 3 years - Issue Otherwise – Requires FAA Decision
Transient loss of nervous system function(s) without satisfactory medical explanation of the cause; e.g., transient global amnesia	All	Submit all pertinent medical records, current status report, to include name and dosage of medication(s) and side-effects	Requires FAA Decision

¹⁹ Unexplained syncope, single seizure. An applicant who has a history of epilepsy, a disturbance of consciousness without satisfactory medical explanation of the cause, or a transient loss of control of nervous system function(s) without satisfactory medical explanation of the cause must be denied or deferred by the Examiner.

²⁰ Infrequently, the FAA has granted an Authorization under the special issuance section of part 67 (14 CFR 67.401) when a seizure disorder was present in childhood but the individual has been seizure-free for a number of years. Factors that would be considered in determining eligibility in such cases would be age at onset, nature and frequency of seizures, precipitating causes, and duration of stability without medication. Follow-up evaluations are usually necessary to confirm continued stability of an individual's condition if an Authorization is granted under the special issuance section of part 67 (14 CFR 67.401).

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Other Conditions			
Trigeminal Neuralgia	All	Submit all pertinent medical records, current neurologic report, name and dosage of medication(s) and side-effects	Requires FAA Decision
Presence of any neurological condition or disease that potentially may incapacitate an individual			
Head Trauma associated with: ²¹ Epidural or Subdural Hematoma; Focal Neurologic Deficit; Depressed Skull Fracture; or Unconsciousness or disorientation of more than 1 hour following injury	All	Submit all pertinent medical records, current status report, to include pre-hospital and emergency department records, operative reports, neurosurgical evaluation, name and dosage of medication(s) and side-effects	Requires FAA Decision

²¹ Pain, in some conditions, may be acutely incapacitating. Chronic recurring headaches or pain syndromes often require medication for relief or prophylaxis, and, in most instances, the use of such medications are disqualifying because they may interfere with a pilot's alertness and functioning. The Examiner may issue a medical certificate to an applicant with a long-standing history of headaches if mild, seldom requiring more than simple analgesics, occur infrequently, are not incapacitating, and are not associated with neurological stigmata.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Spasticity, Weakness, or Paralysis of the Extremities			
Conditions that are stable and non-progressive may be considered for medical certification	All	Submit all pertinent medical records, current neurologic report, to include etiology, degree of involvement, period of stability, appropriate laboratory and imaging studies	Requires FAA Decision
Vertigo or Disequilibrium²²			
Alternobaric Vertigo; Hyperventilation Syndrome; Meniere's Disease and Acute Peripheral Vestibulopathy; Nonfunctioning Labyrinths; or Orthostatic Hypotension	All	Submit all pertinent medical records, current neurologic report, name and dosage of medication(s) and side-effects	Requires FAA Decision

²² Numerous conditions may affect equilibrium, resulting in acute incapacitation or varying degrees of chronic recurring spatial disorientation. Prophylactic use of medications also may cause recurring spatial disorientation and affect pilot performance. In most instances, further neurological evaluation will be required to determine eligibility for medical certification.

ITEM 47. PSYCHIATRIC

CHECK EACH ITEM IN APPROPRIATE COLUMN	NORMAL	ABNORMAL
47. Psychiatric (Appearance, behavior, mood, communication, and memory)		

I. Code of Federal Regulations

All Classes: 14 CFR 67.107(a)(b)(c), 67.207(a)(b)(c), and 67.307(a)(b)(c)

(a) No established medical history or clinical diagnosis of any of the following:

(1) A personality disorder that is severe enough to have repeatedly manifested itself by overt acts.

(2) A psychosis. As used in this section, "psychosis" refers to a mental disorder in which:

(i) The individual has manifested delusions, hallucinations, grossly bizarre or disorganized behavior, or other commonly accepted symptoms of this condition; or

(ii) The individual may reasonably be expected to manifest delusions, hallucinations, grossly bizarre or disorganized behavior, or other commonly accepted symptoms of this condition.

(3) A bipolar disorder.

(4) Substance dependence, except where there is established clinical evidence, satisfactory to the Federal Air Surgeon, of recovery, including sustained total abstinence from the substance(s) for not less than the preceding 2 years. As used in this section-

(i) "Substance" includes: alcohol; other sedatives and hypnotics; anxiolytics; opioids; central nervous system stimulants such as cocaine, amphetamines, and similarly acting sympathomimetics; hallucinogens; phencyclidine or similarly acting arylcyclohexylamines; cannabis; inhalants; and other psychoactive drugs and chemicals; and

(ii) "Substance dependence" means a condition in which a person is dependent on a substance, other than tobacco or ordinary xanthine-containing (e.g., caffeine) beverages, as evidenced by-

- (A) Increased tolerance
- (B) Manifestation of withdrawal symptoms;
- (C) Impaired control of use; or
- (D) Continued use despite damage to physical health or impairment of social, personal, or occupational functioning.

(b) No substance abuse within the preceding 2 years defined as:

- (1) Use of a substance in a situation in which that use was physically hazardous, if there has been at any other time an instance of the use of a substance also in a situation in which that use was physically hazardous;
- (2) A verified positive drug test result acquired under an anti-drug program or internal program of the U.S. Department of Transportation or any other Administration within the U.S. Department of Transportation; or
- (3) Misuse of a substance that the Federal Air Surgeon, based on case history and appropriate, qualified medical judgment relating to the substance involved, finds-
 - (i) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
 - (ii) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(c) No other personality disorder, neurosis, or other mental condition that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds-

- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(Also see Items 18.m., n., and p., page 31 and 32).

II. Examination Techniques

The FAA does not expect the Examiner to perform a formal psychiatric examination.

However, the Examiner should form a general impression of the emotional stability and mental state of the applicant. There is a need for discretion in the Examiner/applicant relationship consonant with the FAA's aviation safety mission and the concerns of all applicants regarding disclosure to a public agency of sensitive information that may not be pertinent to aviation safety. Examiners must be sensitive to this need while, at the same time, collect what is necessary for a certification decision. When a question arises, the Federal Air Surgeon encourages Examiners first to check this Guide for Aviation Medical Examiners and other FAA informational documents. If the question remains unresolved, the Examiner should seek advice from a RFS or the Manager of the AMCD.

Review of the applicant's history as provided on the application form may alert the Examiner to gather further important factual information. Information about the applicant may be found in items related to age, pilot time, and class of certificate for which applied. Information about the present occupation and employer also may be helpful. If any psychotropic drugs are or have been used, follow-up questions are appropriate. Previous medical denials or aircraft accidents may be related to psychiatric problems.

Psychiatric information can be derived from the individual items in medical history (Item 18). Any affirmative answers to Item 18.m., "Mental disorders of any sort; depression, anxiety, etc.," or Item 18.p., "Suicide attempt," are significant. Any disclosure of current or previous alcohol or drug problems requires further clarification. A record of traffic violations may reflect certain personality problems or indicate an alcohol problem. Affirmative answers related to rejection by military service or a military medical discharge require elaboration. Reporting symptoms such as headaches or dizziness, or even heart or stomach trouble, may reflect a history of anxiety rather than a primary medical problem in these areas. Sometimes, the information applicants give about their previous diagnoses is incorrect, either because the applicant is unsure of the correct information or because the applicant chooses to minimize past difficulties. If there was a hospital admission for any emotionally related problem, it will be necessary to obtain the entire record.

Valuable information can be derived from the casual conversation that occurs during the physical examination. Some of this conversation will reveal information about the family, the job, and special interests. Even some personal troubles may be revealed at this time. The Examiner's questions should not be stilted or follow a regular pattern; instead, they should be a natural extension of the Examiner's curiosity about the person being examined. Information about the motivation for medical certification and interest in flying may be revealing. A formal Mental Status Examination is unnecessary. For example, it is not necessary to ask about time, place, or person to discover whether the applicant is oriented. Information about the flow of associations, mood, and memory, is generally available from the usual interactions during the examination. Indication of cognitive problems may become apparent during the examination. Such problems with concentration, attention, or confusion during the examination or slower, vague responses should be noted and may be cause for deferral.

The Examiner should make observations about the following specific elements and should note on the form any gross or notable deviations from normal:

1. Appearance (abnormal if dirty, disheveled, odoriferous, or unkempt);
2. Behavior (abnormal if uncooperative, bizarre, or inexplicable);
3. Mood (abnormal if excessively angry, sad, euphoric, or labile);
4. Communication (abnormal if incomprehensible, does not answer questions directly);
5. Memory (abnormal if unable to recall recent events); and
6. Cognition (abnormal if unable to engage in abstract thought, or if delusional or hallucinating).

The Examiner, upon identifying any significant problems, should defer issuance of the medical certificate and report findings to the FAA. This could be accomplished by contacting a RFS or the Manager of the AMCD.

III. Aerospace Medical Disposition

A. General Considerations. It must be pointed out that considerations for safety, which in the "mental" area are related to a compromise of judgment and emotional control or to diminished mental capacity with loss of behavioral control, are not the same as concerns for emotional health in everyday life. Some problems may have only a slight impact on an individual's overall capacities and the quality of life but may nevertheless have a great impact on safety. Conversely, many emotional problems that are of therapeutic and clinical concern have no impact on safety.

B. Denials. The FAA has concluded that certain psychiatric conditions are such that their presence or a past history of their presence is sufficient to suggest a significant potential threat to safety. It is, therefore, incumbent upon the Examiner to be aware of any indications of these conditions currently, or in the past, and to deny or defer issuance of the medical certificate to an applicant who has a history of these conditions. An applicant who has a current diagnosis or history of these conditions (listed below) may request the FAA to grant an Authorization under the special issuance section of part 67 (14 CFR 67.401) and, based upon individual considerations, the FAA may grant such an issuance.

NOTE: The use of a psychotropic drug is disqualifying for aeromedical certification purposes. This includes all sedatives, tranquilizers, antipsychotic drugs, antidepressant drugs (including SSRI's), analeptics, anxiolytics, and hallucinogens. The Examiner

should defer issuance and forward the medical records to the AMCD.

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Psychiatric Conditions			
Adjustment Disorders	All	Submit all pertinent medical information and clinical status report	If stable, resolved, no associated disturbance of thought, no recurrent episodes, and psychotropic medication(s) used for less than 6 months and discontinued for at least 3 months - Issue Otherwise - Requires FAA Decision
Bipolar Disorder	All	See III. B-3 below	Requires FAA Decision

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Psychiatric Conditions			
Bereavement; Dysthmic; or Minor Depression	All	Submit all pertinent medical information and clinical status report	If stable, resolved, no associated disturbance of thought, no recurrent episodes, and; a). psychotropic medication(s) used for less than 6 months and discontinued for at least 3 months – Issue b). No use of psychotropic medication(s) - Issue Otherwise - Requires FAA Decision
Personality Disorder	All	See III. B-1 and 4 below	Requires FAA Decision
Psychosis	All	See III. B-2 below	Requires FAA Decision
Psychotropic medications for Smoking Cessation	All	Document period of use, name and dosage of medication(s) and side-effects	If medication(s) discontinued for at least 30 days and w/o side-effects - Issue Otherwise – Requires FAA Decision
Substance Abuse	All	See III. B-6 below	Requires FAA Decision
Substance Dependence	All	See III.B-5 below	Requires FAA Decision
Suicide Attempt	All	Submit all pertinent medical information required	Requires FAA Decision

1. The category of personality disorders severe enough to have repeatedly manifested itself by overt acts refers to diagnosed personality disorders that involve what is called "acting out" behavior. These personality problems relate to poor social judgment, impulsivity, and disregard or antagonism toward authority, especially rules and regulations. A history of long-standing behavioral problems, whether major (criminal) or relatively minor (truancy, military misbehavior, petty criminal and civil indiscretions, and social instability), usually occurs with these disorders.

Driving infractions and previous failures to follow aviation regulations are critical examples of these acts.

Certain personality disorders and other mental disorders that include conditions of limited duration and/or widely varying severity may be disqualifying. Under this category, the FAA is especially concerned with significant depressive episodes requiring treatment, even outpatient therapy. If these episodes have been severe enough to cause some disruption of vocational or educational activity, or if they have required medication or involved suicidal ideation, the application should be deferred or denied issuance.

Some personality disorders and situational dysphorias may be considered disqualifying for a limited time. These include such conditions as gross immaturity and some personality disorders not involving or manifested by overt acts.

2. The category of psychosis includes schizophrenia and some bipolar and major depression, as well as some other rarer conditions. In addition, some conditions such as schizotypal and borderline personality disorders that include psychotic symptoms at some time in their course may also be disqualifying.

3. A bipolar disorder may not reach the level of psychosis but can be so disruptive of judgment and functioning (especially mania) so as to interfere with aviation safety. All applicants with such a diagnosis must be denied or deferred. However, a number of these applicants, so diagnosed, may be favorably considered for an Authorization when the symptoms do not constitute a threat to safe aviation operations.

4. Although they may be rare in occurrence, severe anxiety problems, especially anxiety and phobias associated with some aspect of flying, are considered significant. Organic mental disorders that cause a cognitive defect, even if the applicant is not psychotic, are considered disqualifying whether they are due to trauma, toxic exposure, or arteriosclerotic or other degenerative changes.

(See Item 18.m., page 31).

5. Substance dependence refers to the use of substances of dependence, which include alcohol and other drugs (i.e., PCP, sedatives and hypnotics, anxiolytics, marijuana, cocaine, opioids, amphetamines, hallucinogens, and other psychoactive drugs or chemicals). Substance dependence is defined and specified as a disqualifying medical condition. It is disqualifying unless there is clinical evidence, satisfactory to the Federal Air Surgeon, of recovery, including sustained total abstinence from the substance for not less than the preceding 2 years.

Substance dependence is evidenced by one or more of the following: increased tolerance, manifestation of withdrawal symptoms, impaired control of use, or continued use despite damage to physical health or impairment of social, personal, or occupational functioning. Substance dependence is accompanied by various deleterious effects on physical health as well as personal or social functioning. There are many other indicators of substance dependence in the history and physical examination. Treatment for substance dependence-related problems, arrests, including charges of driving under the influence of drugs or alcohol, and vocational or marital disruption related to drugs or alcohol consumption are important indicators. Alcohol on the breath at the time of a routine physical examination should arouse a high index of suspicion. Consumption of drugs or alcohol sufficient to cause liver damage is an indication of the presence of alcoholism.

6. Substance abuse includes the use of the above substances under any one of the following conditions:

- a. Use of a substance in the last 2 years in which the use was physically hazardous (e.g., DUI or DWI) if there has been at any other time an instance of the use of a substance also in a situation in which the use was physically hazardous;
- b. If a person has received a verified positive drug test result under an anti-drug program of the Department of Transportation or one of its administrations; or
- c. The Federal Air Surgeon finds that an applicant's misuse of a substance makes him or her unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held, or that may reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the applicant unable to perform those duties or exercise those privileges.

Substance dependence and substance abuse are specified as disqualifying medical conditions.

ITEM 48. GENERAL SYSTEMIC

CHECK EACH ITEM IN APPROPRIATE COLUMN	NORMAL	ABNORMAL
48. General Systemic		

I. Code of Federal Regulations**All Classes: 14 CFR 67.113(a)(b)(c), 67.213(a)(b)(c), and 67.313(a)(b)(c)**

(a) No established medical history or clinical diagnosis of diabetes mellitus that requires insulin or any other hypoglycemic drug for control.

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds-

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds-

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

A protocol for examinations applicable to Item 48 (see page 119), is not provided because the necessary history taking, observation, and other examination techniques used in examining other systems have already revealed much of what can be known about the status of the applicant's endocrine and other systems. For example, the examination of the skin alone can reveal important signs of thyroid dysfunction, Addison's disease, Cushing's disease, and several other endocrine disorders. The eye may reflect a thyroid disorder (exophthalmos) or diabetes (retinopathy).

When the Examiner reaches Item 48 (see page 119), in the course of the examination of an applicant, it is recommended that the Examiner take a moment to review and determine if key procedures have been performed in conjunction with examinations

made under other items, and to determine the relevance of any positive or abnormal findings.

III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Blood and Blood-Forming Tissue Disease			
Anemia	All	Submit a current status report and all pertinent medical reports. Include a CBC, and any other tests deemed necessary	Requires FAA Decision
Hemophilia	All	Submit a current status report and all pertinent medical reports. Include frequency, severity and location of bleeding sites	Requires FAA Decision
Other disease of the blood or blood-forming tissues that could adversely affect performance of airman duties	All	Submit a current status report and all pertinent medical reports	Requires FAA Decision
Polycythemia	All	Submit a current status report and all pertinent medical reports; include CBC	Requires FAA Decision

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Diabetes				
Diabetes Insipidus	All	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects	Requires FAA Decision	
Diabetes Mellitus Diet Controlled	All	See Diabetes Mellitus Controlled by Diet and Exercise Protocol	If no glycosuria and normal Hgba1c - Issue	
Diabetes Mellitus I requiring Insulin	1 st & 2nd	Not currently granting special issuance	Requires FAA Decision	
	3rd	See Diabetes Mellitus I Protocol	Requires FAA Decision	
Diabetes Mellitus II requiring oral medication	1 st & 2nd	See Diabetes Mellitus II Protocol	Requires FAA Decision	
	3rd	See Diabetes Mellitus II Protocol	INITIAL Defer	FOLLOWUP AASI
Endocrine Disorders				
Acromegaly	All	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects	Requires FAA Decision	
Addison's Disease	All	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects	Requires FAA Decision	

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION
Endocrine Disorders			
Cushing's Disease or Syndrome	All	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects	Requires FAA Decision
Hypoglycemia, whether functional or a result of pancreatic tumor	All	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects	Requires FAA Decision
Hyperparathyroidism	All	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects, and current serum calcium and phosphorus levels	If status post surgery, disease controlled, stable and no sequela - Issue Otherwise - Requires FAA Decision
Hypoparathyroidism	All	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects and current serum calcium and phosphorus	Requires FAA Decision

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Endocrine Disorders				
Hyperthyroidism	1 st & 2nd	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects and current TFTs	If euthyroid - Issue	
	3rd		Otherwise - Requires FAA Decision	
			INITIAL	FOLLOWUP
			Defer	AASI
Hypothyroidism ²³	1 st & 2nd	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects and current TFTs	Requires FAA Decision	
	3rd		INITIAL	FOLLOWUP
			Defer	AASI
Glycosuria & Proteinuria	All	Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects	Trace or 1+ protein and glucose intolerance ruled out - Issue	
			Otherwise - Requires FAA Decision	
Human Immunodeficiency Virus (HIV)				
Acquired Immunodeficiency Syndrome (AIDS)	All	See HIV Protocol	Requires FAA Decision	
Human Immunodeficiency Virus (HIV)	All	See HIV Protocol	Requires FAA Decision	

²³ The use of thyroid replacement therapy following diagnosis of either hyperthyroidism or hypothyroidism is not disqualifying if the applicant appears clinically euthyroid pending receipt of confirmatory laboratory tests.

DISEASE/CONDITION	CLASS	EVALUATION DATA	DISPOSITION	
Leukemia, Acute and Chronic – All Types (except Chronic Lymphocytic Leukemia for Third-Class)				
Leukemia, Acute and Chronic - All Types (except Chronic Lymphocytic Leukemia for Third-Class)	1 st & 2nd	Submit a current status report and all pertinent medical reports	Requires FAA Decision	
	3rd		INITIAL	FOLLOWUP
			Defer	AASI

CHAPTER 4

EXAMINATION TECHNIQUES AND CRITERIA FOR QUALIFICATION

ITEMS 49-64 of FAA Form 8500-8

This chapter provides guidance for the completion of Items 49-64 of FAA Form 8500-8. The Examiner is responsible for conducting the examination. However, he or she may delegate to a qualified physician's assistant, nurse, aide, or laboratory assistant the testing required for Items 49-58. Regardless of who performs the tests, the Examiner is responsible for the accuracy of the findings, and this responsibility **may not** be delegated.

After all routine evaluations and tests are completed, the Examiner should make a complete review of FAA Form 8500-8. If the form is complete and accurate, the Examiner should add final comments, make qualification decision statements, and sign the declaration. The medical history page of FAA Form 8500-8 must be completed in the handwriting of and signed and dated by the applicant. Upon completion of the physical examination, the entire FAA Form 8500-8, Items 1 through 64 **must** be electronically transmitted to the FAA.

ITEM 49. HEARING

49. Hearing	Record Audiometric Speech Discrimination Score Below
Conversational Voice Test at 6 Feet <input type="checkbox"/> Pass <input type="checkbox"/> Fail	

I. Code of Federal Regulations

All Classes: 14 CFR 67.105(a)(b)(c), 67.205(a)(b)(c), and 67.305(a)(b)(c)

(a) The person shall demonstrate acceptable hearing by at least one of the following tests:

- (1) Demonstrate an ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 6 feet from the examiner, with the back turned to the examiner.
- (2) Demonstrate an acceptable understanding of speech as determined by audiometric speech discrimination testing to a score of at least 70 percent obtained in one ear or in a sound field environment.

(3) Provide acceptable results of pure tone audiometric testing of unaided hearing acuity according to the following table of worst acceptable thresholds, using the calibration standards of the American National Standards Institute, 1969 (11 West 42nd Street, New York, NY 10036):

Frequency (Hz)	500 Hz	1000 Hz	2000 Hz	3000 Hz
Better ear (Db)	35	30	30	40
Poorer ear (Db)	35	50	50	60

(b) No disease or condition of the middle or internal ear, nose, oral cavity, pharynx, or larynx that-

(1) Interferes with, or is aggravated by, flying or may reasonably be expected to do so; or

(2) Interferes with, or may reasonably be expected to interfere with, clear and effective speech communication.

(c) No disease or condition manifested by, or that may reasonably be expected to be manifested by, vertigo or a disturbance of equilibrium.

II. Examination Equipment and Techniques

A. Order of Examinations

1. The applicant must demonstrate an ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 6 feet from the Examiner, with the back turned to the Examiner.

2. If an applicant fails the conversational voice test, the Examiner may administer pure tone audiometric testing of unaided hearing acuity according to the following table of worst acceptable thresholds, using the calibration standards of the American National Standards Institute, 1969:

Frequency (Hz)	500 Hz	1000 Hz	2000 Hz	3000 Hz
Better ear (Db)	35	30	30	40
Poorer ear (Db)	35	50	50	60

If the applicant fails an audiometric test and the conversational voice test had not been administered, the conversational voice test should be performed to determine if the standard applicable to that test can be met.

3. If an applicant is unable to pass either the conversational voice test or the pure tone audiometric test, then an audiometric speech discrimination test should be

administered. A passing score is at least 70 percent obtained in one ear at an intensity of no greater than 65 Db.

B. Discussion

1. Conversational voice test. For all classes of certification, the applicant must demonstrate hearing of an average conversational voice in a quiet room, using both ears, at 6 feet, with the back turned to the Examiner. The Examiner should not use only sibilants (S-sounding test materials). If the applicant is able to repeat correctly the test numbers or words, "pass" should be noted and recorded on FAA Form 8500-8, Item 49. If the applicant is unable to hear a normal conversational voice then "fail" should be marked and one of the following tests may be administered:

2. Standard. For all classes of certification the applicant may be examined by pure tone audiometry as an alternative to conversational voice testing or upon failing the conversational voice test. If the applicant fails the pure tone audiometric test and has not been tested by conversational voice, that test may be administered. The requirements expressed as audiometric standards according to a table of acceptable thresholds (American National Standards Institute [ANSI], 1969, calibration) are as follows:

CLASS (1 st /2 nd /3 rd) EAR				
Frequency (Hz)	500 Hz	1000 Hz	2000 Hz	3000 Hz
Better ear (Db)	35	30	30	40
Poorer ear (Db)	35	50	50	60

3. Audiometric Speech Discrimination. Upon failing both conversational voice and pure tone audiometric test, an audiometric speech discrimination test should be administered (usually by an otologist or audiologist). The applicant must score at least 70 percent at an intensity no greater than 65 Db in either ear.

C. Equipment

1. Approval. The FAA does not approve or designate specific audiometric equipment for use in medical certification. Equipment used for FAA testing must accurately and reliably cover the required frequencies and have adequate threshold step features. Because every audiometer manufactured in the United States for screening and diagnostic purposes is built to meet appropriate standards, most audiometers should be acceptable *if they are maintained in proper calibration* and are used in an adequately quiet place.

2. Calibration. It is critical that any audiometer be periodically calibrated to ensure its continued accuracy. Annual calibration is recommended. Also recommended is the further safeguard of obtaining an occasional audiogram on a "known" subject or staff member between calibrations, especially at any time that a test result unexpectedly varies significantly from the hearing levels clinically expected. This

testing provides an approximate "at threshold" calibration. The Examiner should ensure that the audiometer is calibrated to ANSI standards or if calibrated to the older ASA/USASI standards, the appropriate correction is applied (see paragraph 3 below).

3. ASA/ANSI. Older audiometers were often calibrated to meet the standards specified by the USA Standards Institute (USASI), formerly the American Standards Association (ASA). These standards were based upon a U.S. Public Health Service survey. Newer audiometers are calibrated so that the zero hearing threshold level is now based on laboratory measurements rather than on the survey. In 1969, the American National Standards Institute (ANSI) incorporated these new measurements. Audiometers built to this standard have instruments or dials that read in ANSI values. For these reasons, *it is very important that every audiogram submitted (for values reported in Item 49 on FAA Form 8500-8) include a note indicating whether it is ASA or ANSI.* Only then can the FAA standards be appropriately applied. ASA or USASI values can be converted to ANSI by adding corrections as follows:

Frequency (Hz)	500 Hz	1,000 Hz	2,000 Hz	3,000 Hz
Decibels Added*	14	10	8.5	8.5

*The decibels added figure is the amount added to ASA or USASI at each specific frequency to convert to ANSI or older equivalent ISO values.

III. Aerospace Medical Disposition

1. Special Issuance of Medical Certificates. Applicants who do not meet the auditory standards may be found eligible for a Statement of Demonstrated Ability (SODA). An applicant seeking a SODA must make the request in writing to the Aerospace Medicine Certification Division, AAM-300. A determination of qualifications will be made on the basis of a special medical examination by an ENT consultant, a MFT, or operational experience.

2. Bilateral Deafness. if otherwise qualified, the AMCD may issue a combination medical/student pilot certificate with the limitation VALID FOR STUDENT PILOT PURPOSES ONLY as well as the limitation NOT VALID FOR CONTROL ZONES OR AREAS WHERE RADIO COMMUNICATION IS REQUIRED. This will enable the applicant to proceed with training to the point of a private pilot checkride. See Items 25-30, page 38.

When the student pilot's instructor confirms the student's eligibility for a private pilot checkride, the applicant should submit a written request to the AMCD, for an authorization for a MFT. This test will be given by an FAA inspector in conjunction with the checkride. If the applicant successfully completes the test, the FAA will issue a

third-class medical certificate and SODA. Pilot activities will be restricted to areas in which radio communication is not required.

3. Hearing Aids. If the applicant meets the standard with the use of hearing aids, the certificate may be issued with the following restriction:

VALID ONLY WITH USE OF HEARING AMPLIFICATION

Some pilots who normally wear hearing aids to assist in communicating while on the ground report that they elect not to wear them while flying. They prefer to use the volume amplification of the radio headphone. Some use the headphone on one ear for radio communication and the hearing aid in the other for cockpit communications.

ITEMS 50- 54. OPHTHALMOLOGIC DISORDER

ITEM 50. DISTANT VISION

50. Distant Vision		
Right	20/	Corrected to 20/
Left	20/	Corrected to 20/
Both	20/	Corrected to 20/

I. Code of Federal Regulations

First- and Second-Classes: 14 CFR 67.103(a) and 67.203(a)

(a) Distant visual acuity of 20/20 or better in each eye separately, with or without corrective lenses. If corrective lenses (spectacles or contact lenses) are necessary for 20/20 vision, the person may be eligible only on the condition that corrective lenses are worn while exercising the privileges of an airman certificate

Third-Class: 14 CFR 67.303(a)

(a) Distant visual acuity of 20/40 or better in each eye separately, with or without corrective lenses. If corrective lenses (spectacles or contact lenses) are necessary for 20/40 vision, the person may be eligible only on the condition that corrective lenses are worn while exercising the privileges of an airman certificate.

II. Examination Equipment and Techniques

1. Each eye will be tested separately, and both eyes together.
2. Snellen 20-foot eye chart may be used as follows:
 - a. The Snellen chart should be illuminated by a 100-watt incandescent lamp placed 4 feet in front of and slightly above the chart.

- b. The chart or screen should be placed 20 feet from the applicant's eyes and the 20/20 line should be placed 5 feet 4 inches above the floor.
 - c. A metal, opaque plastic, or cardboard occluder should be used to cover the eye not being examined.
 - d. The examining room should be darkened with the exception of the illuminated chart or screen.
 - e. If the applicant wears corrective lenses, the uncorrected acuity should be determined first, then corrected acuity. If the applicant wears contact lenses, see the recommendations in paragraph III.F., of this item.
 - f. Common errors:
 - 1. Failure to shield the applicant's eyes from extraneous light.
 - 2. Permitting the applicant to view the chart with both eyes.
 - 3. Failure to observe the applicant's face to detect squinting.
 - 4. Incorrect sizing of projected chart letters for a 20-foot distance.
 - 5. Failure to focus the projector sharply.
 - 6. Failure to obtain the corrected acuity when the applicant wears glasses.
 - 7. Failure to note and to require the removal of contact lenses.
3. Directions furnished by the manufacturer or distributor should be followed when using substitute devices for the above testing.

Acceptable Substitutes for Distant Vision Testing: Projector with screen; Keystone Orthoscope; Bausch & Lomb Orthorator; AOC Site-Screener; Titmus Vision Tester; Keystone Telebinocular; OPTEC 2000 Vision Tester.

III. Aerospace Medical Disposition

A. When corrective lenses are required to meet the standards, an appropriate limitation will be placed on the medical certificate. For example, when lenses are needed for distant vision only:

HOLDER SHALL WEAR CORRECTIVE LENSES

For multiple vision defects involving distant and/or intermediate and/or near vision when one set of monofocal lenses corrects for all, the limitation is:

HOLDER SHALL WEAR CORRECTIVE LENSES

For combined defective distant and near visual acuity where multifocal lenses are required, the appropriate limitation is:

HOLDER SHALL WEAR LENSES THAT CORRECT FOR DISTANT VISION
AND POSSESS GLASSES THAT CORRECT FOR NEAR VISION

For multiple vision defects involving distant, near, and intermediate visual acuity when more than one set of lenses is required to correct for all vision defects, the appropriate limitation is:

HOLDER SHALL WEAR LENSES THAT CORRECT FOR DISTANT VISION
AND POSSESS GLASSES THAT CORRECT FOR NEAR AND INTERMEDIATE
VISION

(For limitations as they appear on medical certificates, see Appendix B).

B. An applicant who fails to meet vision standards and has no SODA that covers the extent of the visual acuity defect found on examination may obtain further FAA consideration for grant of an Authorization under the special issuance section of part 67 (14 CFR 67.401) for medical certification by submitting a report of an eye evaluation. The Examiner can help to expedite the review procedure by forwarding a copy of FAA Form 8500-7, Report of Eye Evaluation, that has been completed by an eye specialist²⁴.

C. Applicants who do not meet the visual standards should be referred to a specialist for evaluation. Applicants with visual acuity or ocular muscle balance problems may be referred to either an optometrist or an ophthalmologist of the applicant's choice. Applicants with eye disease (e.g., glaucoma) should be referred only to an ophthalmologist. The FAA Form 8500-7, Report of Eye Evaluation, should be provided to the specialist by the Examiner.

D. Amblyopia. In amblyopia ex anopsia, the visual acuity of one eye is decreased without presence of organic eye disease, usually because of strabismus or anisometropia in childhood. In amblyopia ex anopsia, the visual acuity loss is simply recorded in Item 50 of FAA form 8500-8, and visual standards are applied as usual. If the standards are not met, a report of eye evaluation, FAA Form 8500-7, should be submitted for consideration.

E. Monovision. See Monovision Protocol

Item 51.a. NEAR VISION

51.a. Near Vision		
Right	20/	Corrected to 20/
Left	20/	Corrected to 20/
Both	20/	Corrected to 20/

²⁴ In obtaining special eye evaluations in respect to the airman medical certification program or the air traffic controller health program, reports from either optometrists or ophthalmologists are acceptable when the condition being evaluated relates to a determination of visual acuity, refractive error, or mechanical function of the eye. FAA Form 8500-7, Report of Eye Evaluation, is a form that is designed for use by either optometrists or ophthalmologists. In those cases where individuals are being referred for treatment or diagnosis of a disease of the eye, evaluations should usually be conducted by ophthalmologists. Board certification is not considered essential.

Therefore, except under unusual circumstances, you should make no distinction between optometrists or ophthalmologists as a source of information regarding visual acuity, refractive error, or mechanical function of the eye when referring applicants or employees for eye evaluations. You may, however, specify that only reports from ophthalmologists will be accepted when referring an individual for treatment or diagnosis of eye disease.

Any applicant eligible for a medical certificate through special issuance under these guidelines shall pass a MFT, which may be arranged through the appropriate agency medical authority. While waiting to complete a MFT, an applicant who is otherwise qualified for certification may be issued a medical certificate, which must contain the limitation "Valid for Student Pilot Privileges Only."

ITEM 51.b. INTERMEDIATE VISION

51.b. Intermediate Vision – 32 Inches		
Right	20/	Corrected to 20/
Left	20/	Corrected to 20/
Both	20/	Corrected to 20/

I. Code of Federal Regulations**First- and Second-Classes: 14 CFR 67.103(b) and 67.203(b)**

(b) Near vision of 20/40 or better, Snellen equivalent, at 16 inches in each eye separately, with or without corrective lenses. If age 50 or older, near vision of 20/40 or better, Snellen equivalent, at both 16 inches and 32 inches in each eye separately, with or without corrective lenses.

Third-Class: 14 CFR 67.303(b)

(b) Near vision of 20/40 or better, Snellen equivalent, at 16 inches in each eye separately, with or without corrective lenses.

II. Equipment and Examination Techniques

NEAR AT 16 INCHES	INTERMEDIATE AT 32 INCHES
Near Vision Acuity Test Chart Dated April 1993 FAA Form 8500-1	Near Vision Acuity Test Chart Dated April 1993 FAA Form 8500-1
Acceptable substitutes: AOC Site-Screener Bausch & Lomb Orthorator Keystone Orthoscope Keystone Telebinocular OPTEC 2000 Vision Tester Titmus Vision Tester	Acceptable substitutes: OPEC 2000 Vision Tester Titmus Vision Tester Titmus II Vision Tester (Model Nos. TII and TIIS) Titmus 2 Vision Tester (Model Nos. T2A and T2S) Others as approved

1. Near visual acuity and intermediate visual acuity, if the latter is required, are determined for each eye separately and for both eyes together. Test values are recorded both with and without corrective glasses/lenses when either are worn or required to meet the standards. If the applicant is unable to meet the

intermediate acuity standard unaided, he or she then is tested using each of the corrective lenses or glasses otherwise needed by that person to meet distant and/or near visual acuity standards. If the aided acuity meets the standard using any of the lenses or glasses, the findings are recorded, and the certificate appropriately limited (see Appendix B). If an applicant has no lenses that bring intermediate and/or near visual acuity to the required standards, or better, in each eye, no certificate may be issued, and the applicant is referred to an eye specialist for appropriate visual evaluation and correction..

2. FAA Form 8500-1, Near Vision Acuity Test Chart, dated April 1993, should be used as follows:

a. The examination is conducted in a well-lighted room with the source of light behind the applicant.

b. The applicant holds the chart 16 inches (near) and 32 inches (intermediate) from the eyes in a position that will provide uniform illumination. To ensure that the chart is held at exactly 16 inches or 32 inches from the eyes, a string of that length may be attached to the chart.

c. Each eye is tested separately, with the other eye covered. Both eyes are then tested together.

d. The smallest type correctly read with each eye separately and both eyes together is recorded in linear value. In performing the test using FAA Form 8500-1, the level of visual acuity will be recorded as the line of smallest type the applicant reads accurately. The applicant should be allowed no more than two misread letters on any line.

e. Common errors:

1. Inadequate illumination of the test chart.
2. Failure to hold the chart the specified distance from the eye.
3. Failure to ensure that the untested eye is covered.
4. Failure to determine uncorrected and corrected acuity when the applicant wears glasses.

f. Practical Test. At the bottom of FAA Form 8500-1 is a section for Aeronautical Chart Reading. Letter types and charts are reproduced from aeronautical charts in their actual size.

This may be used when a borderline condition exists at the certifiable limits of an applicant's vision. If successfully completed, a favorable certification action may be taken.

3. Acceptable substitute instruments may be used, following the directions accompanying the instruments.

II. Aerospace Medical Disposition

When correcting glasses are required to meet the near and intermediate vision standards, an appropriate limitation will be placed on the medical certificate. Contact lenses that correct only for near or intermediate visual acuity are not considered acceptable for aviation duties.

If the applicant meets the uncorrected near or intermediate vision standard of 20/40, but already uses spectacles that correct the vision better than 20/40, it is recommended that the Examiner enter the limitation for near or intermediate vision corrective glasses on the certificate.

For all classes, the appropriate wording for the near vision limitation is:

HOLDER SHALL POSSESS GLASSES THAT
CORRECT FOR NEAR VISION

Possession only is required, because it may be hazardous to have distant vision obscured by the continuous wearing of reading glasses.

For first- and second-class, the appropriate wording for combined near and intermediate vision limitation is:

HOLDER SHALL POSSESS GLASSES THAT CORRECT
FOR NEAR AND INTERMEDIATE VISION

For multiple defective distant, near, and intermediate visual acuity when unifocal glasses or contact lenses are used and correct all, the appropriate limitation is:

HOLDER SHALL WEAR CORRECTIVE LENSES

For multiple vision defects involving distance and/or near and/or intermediate visual acuity when more than one set of lenses is required to correct for all vision defects, the appropriate limitation is:

HOLDER SHALL WEAR LENSES THAT CORRECT FOR DISTANT VISION
AND POSSESS GLASSES THAT CORRECT FOR
NEAR AND INTERMEDIATE VISION

ITEM 52. COLOR VISION

52. Color Vision	
<input type="checkbox"/>	Pass
<input type="checkbox"/>	Fail

I. Code of Federal Regulations**First- and Second-Classes: 14 CFR 67.103(c) and 67.203(c)**

(c) Color vision: Ability to perceive those colors necessary for the safe performance of airman duties.

Third-Class: 14 CFR 67.303(c)

(c) Color vision: Ability to perceive those colors necessary for the safe performance of airman duties.

II. Examination Equipment and Techniques

EQUIPMENT	TEST	EDITION	PLATES
Pseudoisochromatic plates	Test book should be held 30" from applicant Plates should be illuminated by at least 20' candles, preferably by a Macbeth Easel Lamp or a Verilux True Color Light (F15T8VLX) Only three seconds are allowed for the applicant to interpret and respond to a given plate		
American Optical Company [AOC]		1965	1-15
AOC-HRR		2 nd	1-11
Dvorine		2 nd	1-15
Ishihara		14 Plate	1-11
		24 Plate	1-15
		38 Plate	1-21
Richmond, 15-plates		1983	1-15

Acceptable Substitutes: The procedures for the Farnsworth Lantern or OPTEC 900 Color Vision Test; Keystone Orthoscope; Keystone Telebinocular; LKC Technologies, Inc., APT-5 Color Vision Tester; OPTEC 2000 Vision Tester

(Model Nos. 2000PM, 2000PAME, and 2000PI); Titmus Vision Tester; Titmus II Vision Tester (Model Nos. TII and TIIS); and the Titmus 2 Vision Tester (Model Nos. T2A and T2S) accompany the instructions.

III. Aerospace Medical Disposition

An applicant does not meet the color vision standard if testing reveals:

A. All Classes

1. Seven or more errors on plates 1-15 of the AOC (1965 edition) pseudoisochromatic plates.
2. AOC-HRR (second edition): Any error in test plates 7-11. Because the first 4 plates in the test book are for demonstration only, test plate 7 is actually the eleventh plate in the book. (See instruction booklet).
3. Seven or more errors on plates 1-15 of Dvorine pseudoisochromatic plates (second edition, 15 plates).
4. Six or more errors on plates 1-11 of the concise 14-plate edition of the Ishihara pseudoisochromatic plates. Seven or more errors on plates 1-15 of the 24-plate edition of Ishihara pseudoisochromatic plates. Nine or more errors on plates 1-21 of the 38-plate edition of Ishihara pseudoisochromatic plates.
5. Seven or more errors on plates 1-15 of the Richmond (1983 edition) pseudoisochromatic plates.
6. Farnsworth Lantern test: An average of more than one error per series of nine color pairs in series 2 and 3. (See instruction booklet).
7. Any errors in the six plates of the Titmus Vision Tester, the Titmus II Vision Tester, the Titmus 2 Vision Tester, the OPTEC 2000 Vision Tester, the OPTEC 900 Vision Tester the Keystone Orthoscope, or Keystone Telebinocular.
8. LKC Technologies, Inc., APT-5 Color Vision Tester. The letter must be correctly identified in at least two of the three presentations of each test condition. (See APT-5 screening chart for FAA-related testing in instruction booklet).

B. Certificate Limitation.

If an applicant fails to meet the color vision standard as interpreted above but is otherwise qualified, the Examiner may issue a medical certificate bearing the limitation:

NOT VALID FOR NIGHT FLYING OR BY COLOR SIGNAL CONTROL

C. Special Issuance of Medical Certificates.

An applicant who holds a medical certificate bearing a color vision limitation may request a signal light test. This request should be in writing and should be directed to the AMCD or RFS. If the applicant passes the signal light test, the FAA will issue a medical certificate without the color vision limitation and provide the applicant with a "letter of evidence." The signal light test may be given at any time during flight training.

D. "Color Vision Correcting" Lens (e.g. X-Chrom). Such lens are unacceptable to the FAA as a means for correcting a pilot's color vision deficiencies.

E. Yarn Test. Yarn tests are not acceptable methods of testing for the FAA medical certificate.

ITEM 53. FIELD OF VISION

53. Field of Vision	
<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal

I. Code of Federal Regulations

First- and Second-Classes: 14 CFR 67.103(d) and 67.203(d)

(d) Field of Vision: Normal

Third-Class: 14 CFR 67.303(d)

(d) Field of Vision: No acute or chronic pathological condition of either eye or adnexa that interferes with the proper function of an eye, that may reasonably be expected to progress to that degree, or that may reasonably be expected to be aggravated by flying.

II. Examination Equipment and Techniques

1. Fifty-inch square black matte surface wall target with center white fixation point; 2 millimeter white test object on black-handled holder:

- a. The applicant should be seated 40 inches from the target.
- b. An occluder should be placed over the applicant's right eye.
- c. The applicant should be instructed to keep the left eye focused on the fixation point.
- d. The white test object should be moved from the outside border of the wall target toward the point of fixation on each of the eight 4-degree radials.
- e. The result should be recorded on a worksheet as the number of inches from the fixation point at which the applicant first identifies the white target on each radial.
- f. The test should be repeated with the applicant's left eye occluded and the right eye focusing on the fixation point.

2. Alternative Techniques:

- a. A standard perimeter may be used in place of the above procedure. With this method, any significant deviation from normal field configuration will require evaluation by an ophthalmologist.
- b. Direct confrontation. This is the least acceptable alternative since this tests for peripheral vision and only grossly for field size and visual defects. The Examiner, standing in front of the applicant, has the applicant look at the Examiner's nose while advancing two moving fingers from slightly behind and to the side of the applicant in each of the four quadrants. Any significant deviation from normal requires ophthalmological evaluation.

III. Aerospace Medical Disposition

A. Ophthalmological Consultations.

If an applicant fails to identify the target in any presentation at a distance of less than 23 inches from the fixation point, an ophthalmologist's evaluation must be requested. This is a requirement for all classes of certification. The Examiner should provide FAA Form 8500-14, Ophthalmological Evaluation for Glaucoma, for use by the ophthalmologist if glaucoma is suspected.

B. Glaucoma.

The FAA may grant an Authorization under the special issuance section of part 67 (14 CFR 67.401) on an individual basis. The Examiner can facilitate FAA review by obtaining a report of Ophthalmological Evaluation for Glaucoma (FAA Form 8500-14) from a treating or evaluating ophthalmologist. (See Item 31).

NOTE: See Glaucoma Protocol.

If considerable disturbance in night vision is documented, the FAA may limit the medical certificate: NOT VALID FOR NIGHT FLYING

C. Other Pathological Conditions.

See Items 31-35, pages ??.

ITEM 54. HETEROPHORIA

54. Heterophoria 20' (in prism diopters)	Esophoria	Exophoria	Right Hyperphoria	Left Hyperphoria

I. Code of Federal Regulations**First- and Second-Classes: 14 CFR 67.103(f) and 67.203(f)**

(f) Bifoveal fixation and vergence-phoria relationship sufficient to prevent a break in fusion under conditions that may reasonably be expected to occur in performing airman duties. Tests for the factors named in this paragraph are not required except for persons found to have more than 1 prism diopter of hyperphoria, 6 prism diopters of esophoria, or 6 prism diopters of exophoria. If any of these values are exceeded, the Federal Air Surgeon may require the person to be examined by a qualified eye specialist to determine if there is bifoveal fixation and an adequate vergence-phoria relationship. However, if otherwise eligible, the person is issued a medical certificate pending the results of the examination.

Third-Class: No Standards

II. Examination Equipment and Techniques

A. Equipment

1. Red Maddox rod with handle.
2. Horizontal prism bar with graduated prisms beginning with one prism diopter and increasing in power to at least eight prism diopters.
3. Acceptable substitutes:

AOC Site-Screener	Maddox rod and individual prisms
Bausch & Lomb	Maddox rod and Risley rotary prism
Orthorator	OPTEC 2000 Vision Tester
Keystone Orthoscope	OPTEC 900 Vision Tester
Keystone Telebinocular	Titmus Vision Tester

B. Examination Techniques

Test procedures to be used accompany the instruments. If the Examiner needs specific instructions for use of the horizontal prism bar and red Maddox rod, these may be obtained from a RFS.

III. Aerospace Medical Disposition

1. First- and Second-class: If an applicant exceeds the heterophoria standards (1 prism diopter of hyperphoria, 6 prism diopters of esophoria, or 6 prism diopters of exophoria) but shows no evidence of diplopia or serious eye pathology, and all other aspects of the examination are favorable, the Examiner should not withhold or deny the medical certificate. The applicant should be advised that the FAA may require further examination by a qualified eye specialist.
2. Third-class: Applicants for a third-class certificate are not required to undergo heterophoria testing. However, if an applicant has strabismus or a history of diplopia, the Examiner should defer issuance of a certificate and forward the application to the AMCD. If the applicant wishes further consideration, the Examiner can help expedite FAA review by providing the applicant with a copy of FAA Form 8500-7, Report of Eye Evaluation.

Other Conditions.

1. In amblyopia ex anopsia, the visual acuity loss is simply recorded in Item 50 of FAA Form 8500-8, and visual standards are applied as usual. If the standards are not met, a Report of Eye Evaluation, FAA Form 8500-7, should be submitted for consideration.

2. Contact Lenses. The Examiner's careful evaluation of the eye is of major importance. Issuance should be deferred if the Examiner finds evidence of lens irritation or a tinted lens that causes significant diminution of transmitted light.

3. Monocularity. An individual with one eye, or effective visual acuity equivalent to monocular, may be considered for medical certification, any class, through the special issuance section of part 67 (14 CFR 67.401).

An applicant will be considered monocular when there is only one eye or when the best corrected distant visual acuity in the poorer eye is no better than 20/200.

4. Sunglasses are not acceptable as the only means of correction to meet visual standards, but may be used for backup purposes if they provide the necessary correction. See Items 31-34, page 45.

5. Refractive Surgery. An applicant who has been treated with refractive surgery may be issued a medical certificate by the Examiner if the applicant meets the visual acuity standards and the Report of Eye Evaluation (FAA Form 8500-7) indicates that healing is complete, visual acuity remains stable, and the applicant does not suffer from significant glare intolerance. This state of recovery is usually reached within 6- to 12-weeks after surgery. The Examiner may, of course, defer issuance and forward the ophthalmology report to the AMCD.

ITEM 55. BLOOD PRESSURE

55. Blood Pressure		
(Sitting mm of Mercury)	Systolic	Diastolic

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)

(b). No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds-

(1). Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held;
or

(2). May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(c). No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved finds-

(1). Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held;
or

(2). May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

Measurement of blood pressure is an essential part of the FAA medical certification examination. The average blood pressure while sitting should not exceed 155 mm mercury systolic and 95 mm mercury diastolic maximum pressure for all classes. A medical assessment is specified for all applicants who need or use antihypertensive medication to control blood pressure. (See [B.](#) below).

II. Examination Techniques

In accordance with accepted clinical procedures, routine blood pressure should be taken with the applicant in the seated position. An applicant should not be denied or deferred first-, second-, or third-class certification unless subsequent recumbent blood pressure readings exceed those contained in this Guide. Any conditions that may adversely affect the validity of the blood pressure reading should be noted.

III. Aerospace Medical Disposition

A. Examining Options

1. An applicant whose pressures are within the above limits, who has not used antihypertensives for 30 days, and who is otherwise qualified should be issued a medical certificate by the Examiner.

2. An applicant whose blood pressure is slightly elevated beyond the FAA specified limits, may, at the Examiner's discretion, have a series of 3 morning and evening blood pressure readings over a 7-day period. If the indication of hypertension remains, even if it is mild or intermittent, the Examiner should defer certification and transmit the application to the AMCD with a note of explanation.

The Examiner must defer issuance of a medical certificate to any applicant whose hypertension has not been evaluated, who uses unacceptable

medications, whose medical status is unclear, whose hypertension is uncontrolled, who manifests significant adverse effects of medication, or whose certification has previously been specifically reserved to the FAA.

B. Initial and Followup Evaluation for Hypertensives Under Treatment - See Hypertension Protocol

ITEM 56. PULSE

56. Pulse
(Resting)

The medical standards do not specify pulse rates that, *per se*, are disqualifying for medical certification. These tests are used, however, to determine the status and responsiveness of the cardiovascular system. Abnormal pulse rates may be reason to conduct additional cardiovascular system evaluations.

II. Examination Techniques

The pulse rate is determined with the individual relaxed in a sitting position.

III. Aerospace Medical Disposition

If there is bradycardia, tachycardia, or arrhythmia, further evaluation is warranted and deferral may be indicated (see Item 36, page 60 for more details.) A cardiac evaluation may be needed to determine the applicant's qualifications. Temporary stresses or fever may, at times, result in abnormal pulse readings. If the Examiner believes this to be the case, the applicant should be given a few days to recover and then be retested. If this is not possible, the Examiner should defer issuance, pending further evaluation.

ITEM 57. URINALYSIS

57. Urinalysis (if abnormal, give results)			
		Albumin	Sugar
<input type="checkbox"/> Normal	<input type="checkbox"/> Abnormal		

I. Code of Federal Regulations

All Classes: 14 CFR 67.113(a)(b), 67.213(a)(b), and 67.313(a)(b)

- (a) No established medical history or clinical diagnosis of diabetes mellitus that requires insulin or any other hypoglycemic drug for control.
- (b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and

appropriate, qualified medical judgment relating to the condition involved, finds

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

II. Examination Techniques

Any standard laboratory procedures are acceptable for these tests.

III. Aerospace Medical Disposition

Glycosuria or proteinuria is cause for deferral of medical certificate issuance until additional studies determine the status of the endocrine and/or urinary systems. If the glycosuria has been determined not to be due to carbohydrate intolerance, the Examiner may issue the certificate. Trace or 1+ proteinuria in the absence of a history of renal disease is not cause for denial.

The Examiner may request additional urinary tests when they are indicated by history or examination. These should be reported on FAA Form 8500-8 or attached to the form as an addendum.

ITEM 58. ECG

58. ECG (Date)		
MM	DD	YYYY

I. Code of Federal Regulations

First-Class: 14 CFR 67.111(b)(c)

(b) A person applying for first-class medical certification must demonstrate an absence of myocardial infarction and other clinically significant abnormality on electrocardiographic examination:

(1) At the first application after reaching the 35th birthday; and

(2) On an annual basis after reaching the 40th birthday.

(c) An ECG will satisfy a requirement of paragraph (b) of this section if it is dated no earlier than 60 days before the date of the application it is to

accompany and was performed and transmitted according to acceptable standards and techniques.

Note: All applicants for certification may be required to provide ECG's when indicated by history or physical examination.

II. Examination Techniques

A. Date. The date of the most recent ECG shall be entered in Item 58 of FAA Form 8500-8 for all first-class applicants.

1. If a first-class applicant is due for a periodic ECG, the Examiner performs and transmits a current tracing according to established procedures. (See D. below).

However, some applicants (such as airline transport pilots who are employed by air carriers with medical departments) may have their company transmit a current ECG directly to the FAA. The Examiner need not require such an applicant to undergo another ECG examination and, if the applicant is otherwise qualified, a medical certificate may be issued. The Examiner should attach a statement to FAA Form 8500-8 to verify that a tracing has been transmitted from another source. The date of that ECG should be entered in Item 58.

2. If a first-class applicant is not required to have a periodic ECG with the current examination, the Examiner should record the date of the preceding ECG in Item 58.

3. If a second- or third-class applicant gives a history of having had an electrocardiogram, the test and date may be entered in Item 59. More importantly, the Examiner should indicate in Item 60 of FAA Form 8500-8 the history and its significance, if any.

4. If the applicant provides no statement and refuses to have a current ECG submitted by the Examiner, the Examiner should defer issuance of the medical certificate. When an ECG is due but is not submitted, the FAA will not affirm the applicant's eligibility for medical certification until the requested ECG has been received and interpreted as being within normal limits. Failure to respond to FAA requests for a required current ECG will result in denial of certification.

B. Currency

1. In order to meet regulatory requirements, a first-class applicant's periodic ECG must have been performed and transmitted within 60 days prior to the date of the first-class application (FAA Form 8500-8). The AMCD, verifies currency of all periodic ECG's.

2. There is no provision for issuance of a first-class medical certificate based upon a promise that an ECG will be obtained at a future date. In such circumstances, the

Examiner should defer issuance and mail the completed FAA Form 8500-8 to the AMCD.

C. Interpretation

1. All ECG's required to establish eligibility for medical certification must be forwarded for interpretation to the Manager of the AMCD. This does not preclude submission of an interpretation by or through the Examiner.
2. Interpretation is accomplished by the staff and consultant cardiologists at the AMCD. Abnormalities are investigated to determine their significance, if any.

D. Technique and Reporting Format for Required ECG's on First-class Applicants

The method for recording and transmitting ECG's is by digital electronic data transfer by the Examiner to the AMCD. Senior Examiners who perform first-class medical examinations are required to have access to this capability.

International Examiners who submit ECG's should use the following format for preparation and submission:

1. See FAA Form 8065-1, Appendix B, Instructions for Preparation and Submittal of Electrocardiogram. However, the FAA also will accept 3-channel or 12-channel strips uncut or mounted on standard mounting paper. The following steps are essential to expedite processing of these tracings:
 - a. All leads must be properly identified.
 - b. Applicant and Examiner identification must be complete and the tracing must be dated.
2. Such hard-copy ECG's are microfilmed for permanent retention in the AMCD. Only tracings that can be microfilmed are acceptable.
3. Provide a Resting tracing. Tracings must be stapled to the ECG report form to ensure that all leads are appropriately coded and interpreted.

ITEM 59. OTHER TESTS GIVEN

59. Other Tests Given

I. Code of Federal Regulations**All Classes: 14 CFR 67.413(a)(b)**

(a) Whenever the Administrator finds that additional medical information or history is necessary to determine whether an applicant for or the holder of a medical certificate meets the medical standards for it, the Administrator requests that person to furnish that information or to authorize any clinic, hospital, physician, or other person to release to the Administrator all available information or records concerning that history. If the applicant or holder fails to provide the requested medical information or history or to authorize the release so requested, the Administrator may suspend, modify, or revoke all medical certificates the airman holds or may, in the case of an applicant, deny the application for an airman medical certificate.

(b) If an airman medical certificate is suspended or modified under paragraph (a) of this section, that suspension or modification remains in effect until the requested information, history, or authorization is provided to the FAA and until the Federal Air Surgeon determines whether the person meets the medical standards under this part.

II. Examination Techniques

Additional medical information may be furnished through additional history taking, further clinical examination procedures, and supplemental laboratory procedures.

On rare occasions, even surgical procedures such as biopsies may be indicated. As a designee of the FAA Administrator, the Examiner has limited authority to apply 14 CFR 67.413 in processing applications for medical certification. When an Examiner determines that there is a need for additional medical information, based upon history and findings, the Examiner is authorized to request prior hospital and outpatient records and to request supplementary examinations including laboratory testing and examinations by appropriate medical specialists. The Examiner should discuss the need with the applicant. The applicant should be advised of the types of additional examinations required and the type of medical specialist to be consulted. Responsibility for ensuring that these examinations are forwarded and that any charges or fees are paid will rest with the applicant. All reports should be forwarded to the AMCD, unless otherwise directed (such as by a RFS).

Whenever, in the Examiner's opinion, medical records are necessary to evaluate an applicant's medical fitness, the Examiner should request that the applicant sign an authorization for the Release of Medical Information (FAA Form 8500-21). (See

Appendix B). The Examiner should forward this authorization to the custodian of the applicant's records so that the information contained in the record may be obtained for attachment to the report of medical examination.

ITEM 60. COMMENTS ON HISTORY AND FINDINGS

60. Comments on History and Findings: AME shall comment on all "YES" answers in the Medical History section and for abnormal findings of the examination. (Attach all consultation reports, ECG's, X-rays, etc., to this report before mailing)

Significant Medical History	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	Abnormal Physical Findings	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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In addition to comments on positive historical or examination findings, this item gives the Examiner an opportunity to report observations and/or findings that are not asked for in other items on the application form. Concern about the applicant's behavior, abnormal situations arising during the conduct of tests, unusual findings, unreported history, and other information thought germane to aviation safety should be reported in Item 60. The Examiner should record dosage, the frequency, and purpose for all currently used medications.

If possible, all ancillary reports such as consultations, ECG's, x-ray release forms, and hospital or other treatment records should be attached. If the delay for those items would exceed 14 days, the Examiner should forward all available data to the AMCD, with a note specifying what additional information is being prepared for submission at a later date.

If there are no significant medical history items or abnormal physical findings, the Examiner should indicate this by checking the appropriate block.

ITEM 61. APPLICANT'S NAME

Item 61. Applicant's Name

The applicant's name should be typed.

ITEM 62. HAS BEEN ISSUED

Item 62. Has Been Issued	<input type="checkbox"/> Medical Certificate	<input type="checkbox"/> Medical & Student Pilot Certificate
<input type="checkbox"/>	No Medical Certificate Issued	Deferred for Further Evaluation
<input type="checkbox"/>	Has Been Denied	Letter of Denial Issued (Copy Attached)

The Examiner must check the proper box to indicate if the Medical Certificate, FAA Form 8500-9 (white), or Medical Certificate and Student Pilot Certificate, FAA Form 8420-2 (yellow), has been issued. If neither form has been issued, the Examiner must indicate denial or deferral by checking one of the two lower boxes. If denied, a copy of the Examiner's letter of denial, FAA Form 8500-2, should be forwarded to the AMCD.

A. Applicant's Refusal. When advised by an Examiner that further examination and/or medical records are needed, the applicant may elect not to proceed. The Examiner should note this on FAA Form 8500-8. No certificate should be issued, and the Examiner should forward the application form to the AMCD, even if the application is incomplete.

B. Anticipated Delay. When the Examiner anticipates a delay of more than 14 days in obtaining records or reports concerning additional examinations, the completed FAA Form 8500-8 should be transmitted to the AMCD with a note stating that additional information will follow. No medical certificate should be issued.

C. Issuance. When the Examiner receives all the supplemental information requested and finds that the applicant meets all the FAA medical standards for the class sought, the Examiner should issue a medical certificate.

D. Deferral. If upon receipt of the information the Examiner finds there is a need for even more information or there is uncertainty about the significance of the findings, certification should be deferred. The Examiner's concerns should be noted on FAA Form 8500-8 and the application transmitted to the AMCD for further consideration.

If the applicant decides at this point to abandon the application for a medical certificate, the Examiner should also note this on FAA Form 8500-8 and mail the incomplete form to the AMCD. An incomplete FAA Form 8500-8 should not be transmitted to the AMCD for further consideration.

E. Denial. When the Examiner concludes that the applicant is clearly ineligible for certification, the applicant should be denied, using FAA Form 8500-2. (See Appendix B). Use of this form will provide the applicant with the reason for the denial and with appeal rights and procedures. (See Chapter 1, Item 4, Medical Certification Decision Making and AME Assisted Special Issuance, page 4).

ITEM 63. DISQUALIFYING DEFECTS

63. Disqualifying Defects (List by Item number)

Any disqualifying defects, diagnoses, or conditions must be listed by item number. Comments or discussion of specific observations or findings may be reported in Item 60 or submitted on a separate sheet of paper.

The Examiner should note in Item 60 that a Letter of Denial, FAA Form 8500-2, was given to the applicant.

ITEM 64. MEDICAL EXAMINER'S DECLARATION

Item 64. Medical Examiner's Declaration - I hereby certify that I have personally reviewed the medical history and personally examined the applicant named on this medical examination report. This report with any attachment embodies my findings completely and correctly.					
Date of Examination			Aviation Medical Examiner's Name		Aviation Medical Examiner's Signature
MM	DD	YYYY	Street Address		
					AME Serial Number
			City	State	Zip Code
			AME Telephone Number ()		

If the application is not transmitted electronically, the date of examination and the Examiner's name and complete address must be typed. The Examiner must personally sign the completed form. The Examiner's serial number and telephone number should be entered in the blocks provided.

The FAA designates specific individuals as Examiners, and this status may not be further delegated to a physician who may be covering the designee's practice.

Although the FAA does not require that the Examiner sign the Examiner's copy of FAA Form 8500-8, the Examiner should at least personally initial this form.

AME Assisted Special Issuance (AASI)

The next 21 pages of the Guide for Aviation Medical Examiners introduces the AME Assisted Special Issuance (AASI) process.

The format of the Guide establishes tables in Chapter 3 for Items 25 - 48 (FAA Form 8500-8). The PROTOCOL section of the aeromedical decisions tables identifies the information required by the Agency to determine the eligibility of the applicant to be medically certificated. References to specific medical tests or procedures should be coordinated through the airman's treating physician(s). At times, an applicant may not have an established treating physician and the Examiner may elect to fulfill this role. You must consider your responsibilities in your capacity as an Examiner as well as the potential conflicts that may arise when performing in this dual capacity.

If this is a first time issuance for a disqualifying disease/condition and the airman has all of the requisite medical information necessary for a determination, the Examiner must defer, and submit all of the documentation to the AMCD or contact the RFS.

For third-class applicants, the Guide refers to a number of selected medical conditions that are initially disqualifying and must be deferred to the AMCD or RFS. Following the granting of an Authorization for Special Issuance of a Medical Certificate (Authorization) by the AMCD or RFS's office, the AASI process allows the Examiner to re-issue airman medical certificates provided the airman meets the disease/condition certification criteria.

Each AASI has their own specialized clinical criteria, by which an Examiner may re-issue or certificate a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

AASI FOR HISTORY OF ARTHRITIS

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- The type of arthritis
- A general assessment of condition and effect on daily activities
- The name and dosage of medication(s) used for treatment and/or prevention with comment regarding side effects
- Comments regarding range of motion of neck, upper and lower extremities, hands, etc.

The Examiner should defer to AMCD or Region if:

- The applicant has developed any associated systemic manifestations
- If new joints become involved
- If the applicant is placed on medication(s) other than those acceptable medications listed below

ARTHRITIS MEDICATIONS

REQUIRES DEFERRAL	ACCEPTABLE
Plaquenil	Aspirin
Oral Chemotherapy - type medications (Methotrexate, steroids >20mg of Prednisone daily, or Gold Therapy)	Ibuprofen
	Naproxen
	Similar nonsteroidal anti-inflammatory drugs (NSAID)

AASI FOR HISTORY OF ASTHMA

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- The applicant's current medical status that addresses frequency of attacks and whether the attacks have resulted in emergency room visits or hospitalizations
- The name and dosage of medication(s) used for treatment and/or prevention with side effects
- Results of Pulmonary Function Testing (PFT), if deemed necessary

The Examiner should defer to the AMCD or Region if:

- The symptoms worsen
- There has been an increase in frequency of emergency room, hospital, or outpatient visits
- The FEV1 is less than 75% predicted value
- The applicant requires 3 or more medications for stabilization
- The applicant is using steroids in dosages equivalent to more than 20mg of Prednisone per day

AASI FOR HISTORY OF ATRIAL FIBRILLATION

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A summary of the applicant's medical condition since the last FAA medical examination, including a statement regarding any further episodes of atrial fibrillation
- The name and dosage of medication(s) used for treatment and/or prevention with comment regarding side effects
- A report of a current 24-hour Holter Monitor

The Examiner should defer to the AMCD or Region if:

- There is a recurrent episode of atrial fibrillation
- The applicant develops chronic atrial fibrillation
- The applicant is placed on anticoagulation therapy

AASI FOR HISTORY OF CHRONIC LYMPHOCYTIC LEUKEMIA

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A clinical followup report from the treating physician that includes an update of the condition of the applicant since the last examination
- The results of any applicable laboratory results, including a complete blood count

The Examiner should defer to the AMCD or Region if:

- The condition currently requires treatment with a chemotherapeutic agent
- The white blood cell count has risen above 80,000

AASI FOR HISTORY OF COLITIS (ULCERATIVE OR CROHN'S DISEASE)

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A statement regarding the extent of disease
- A statement regarding the frequency of exacerbation (the applicant should cease flying with any exacerbation as warned in §61.53)
- The name and dosage of medication(s) used for treatment and/or prevention with comment regarding side effects

The Examiner should defer to the AMCD or Region if:

- There is a current exacerbation of the illness
- The applicant is taking medications such as Lomotil, steroid doses equivalent to more than 20mg of Prednisone per day, antispasmodics, and anticholinergics
- The pattern of exacerbations are increasing in frequency or severity; or applicant underwent surgical intervention

AASI FOR HISTORY OF COLON/COLORECTAL CANCER

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- An update of the status of the malignancy since the last FAA medical examination, to include the results of a current carcinoembryonic antigen (CEA), if a baseline value is available

The Examiner should defer to the AMCD or Region if:

- There has been any progression of the disease or the CEA is elevated

AASI FOR HISTORY OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians make the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify what treating physician(s) information the applicant must provide to request the reissuance of the medical certificate. If this is a first time issuance with this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A statement regarding symptomatology of the condition
- A statement addressing any associated illnesses, such as heart failure
- The name and dosage of medication(s) used for treatment and/or prevention with side effects
- A pulmonary specialist evaluation that includes the results of a current pulmonary function test

The Examiner should defer to the AMCD or Region if:

- The FEV1 or FVC/FeV1 is less than 50%
- The applicant has been placed on a steroid dose equivalent to greater than 20mg of Prednisone per day
- The applicant has developed an associated cardiac condition

AASI FOR HISTORY OF DIABETES MELLITUS II REQUIRING ORAL DIABETIC MEDICATION(S)

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A statement attesting that the airman is maintaining his or her diabetic diet
- A statement regarding any diabetic symptomology
- The results of a current HgA1c level

The Examiner should defer to the AMCD or Region if:

- The applicant has been placed on insulin
- The HgA1c level is greater than 9.0 mg%
- The applicant has developed cardiovascular, neurological, renal and/or ophthalmological disease

AASI FOR HISTORY OF GLAUCOMA

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- Certification only granted for open-angle-glaucoma and ocular hypertension
- The FAA Form 8500-14, Glaucoma Eye Evaluation Form is filled out by the treating physician
- A set of visual fields measurements is provided

The Examiner should defer to the AMCD or Region if:

- The FAA Form 8500-14 Glaucoma Eye Evaluation Form demonstrates visual acuity incompatible with the medical standards
- There is a change in visual fields or adverse change in ocular pressure

AASI FOR HISTORY OF HEPATITIS C

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- Any symptoms the applicant has developed
- The name and dosage of medication(s) used for treatment and/or prevention with comment regarding side effects
- A current liver function profile

The Examiner should defer to the AMCD or Region if:

- The applicant has developed symptoms
- There has been a change in treatment regimen or the applicant has been placed on alpha-interferon
- Any side effects from required medication
- An adverse change in liver function studies

AASI FOR HISTORY OF HYPERTHYROIDISM

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA current statement of the condition since last FAA medical examination
- The name and dosage of medication(s) used for treatment and/or prevention with comment regarding side effects
- Current thyroid function studies

The Examiner should defer to the AMCD or Region if:

- The thyroid function studies are elevated, suggesting inadequate treatment
- The applicant developed an associated illness, such as dysrhythmia

AASI FOR HISTORY OF HYPOTHYROIDISM

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- The etiology of condition
- The name and dosage of medication(s) used for treatment and/or prevention with comment regarding side effects
- A statement regarding any other associated problems, such as cardiac or visual
- A statement regarding the current thyroid stimulating hormone (TSH) level

The Examiner should defer to the AMCD or Region if:

- The applicant develops a related problem in another system, such as cardiac
- The TSH level is elevated

AASI FOR HISTORY OF LYMPHOMA AND HODGKIN'S DISEASE

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- An update of the status of the disease from the last FAA medical examination and any testing deemed necessary by the treating physician

The Examiner should defer to the AMCD or Region if:

- There has been any recurrence or disease progression

AASI FOR HISTORY OF MITRAL OR AORTIC INSUFFICIENCY

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A summary of the applicant's medical condition since the last FAA medical examination, including a statement regarding any further episodes of atrial fibrillation
- A current 2-D echocardiogram with Doppler

The Examiner should defer to the AMCD or Region if:

- The gradient across the valve reaches 40 mm HG
- New symptoms occur
- An arrhythmia develops
- The treating physician or Examiner reports the murmur is now moderate to severe (Grade III or IV)

AASI FOR HISTORY OF MIGRAINES

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A statement regarding the frequency of headaches and/or other associated symptoms since last followup report
- A statement regarding if the characteristics of the headaches changed
- The name and dosage of medication(s) used for treatment and/or prevention with comment regarding side effects

The Examiner should defer to the AMCD or Region if:

- The frequency of headaches and/or other symptoms increase since the last followup report
- The applicant is placed on a disqualifying medication, such as Isometheptene mucate (Midrin), narcotic analgesic, Tramadol HCL (Ultram), tricyclic-antidepressant medication, etc.

AASI FOR HISTORY OF PAROXYSMAL ATRIAL TACHYCARDIA

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A statement regarding any recurrences since the last FAA medical examination
- The name and dosage of medication(s) used for treatment and/or prevention with comment regarding side effects

The Examiner should defer to the AMCD or Region if:

- There have been one or more recurrences
- The applicant has received some treatment that was not reported in the past, such as radiofrequency ablation

AASI FOR HISTORY OF PROSTATE CONDITION

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A current status of the medical condition to include any testing deemed necessary
- A recent prostate specific antigen (PSA) level

The Examiner should defer to the AMCD or Region if:

- The PSA rate rises above 0.75 ng/ml per year
- A new treatment is initiated
- Any metastasis has occurred

AASI FOR HISTORY OF RENAL CALCULI

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- The location of retained stone
- A statement regarding the estimation as to size of stone
- A current report of appropriate X-ray study (IVP, KUB, Ultrasound, or Spiral CT Scan)
- A current report of metabolic work-up
- A comment from treating physician as to likelihood of passage

The Examiner should defer to the AMCD or Region if:

- There is a new retained stone, which has a likelihood of passing
- If the retained stone has moved when compared to previous evaluations
- If the stone has become larger when compared to previous evaluation
- If the treating physician comments that the current stone has a likelihood of passing

AASI FOR HISTORY OF SLEEP APNEA

AME Assisted Special Issuance (AASI) is a process that provides Examiners the ability to reissue a third-class airman medical certificate to an applicant with a medical history of an initially disqualifying condition.

The FAA staff physicians provide the initial certification decision and grant the Authorization in accordance with part 67 (14 CFR § 67.401). The Authorization letter is accompanied by attachments that specify the information that treating physician(s) must provide for the reissuance determination. If this is a first time issuance for this disease/condition, and the airman has all of the requisite medical information necessary for a determination, you must defer and submit all of the documentation to the AMCD, or contact your RFS for the initial determination.

Examiners may reissue an airman medical certificate, if the applicant provides the following:

- An Authorization granted by the FAA
- A current report from the treating physician that mentions the present treatment, whether this has eliminated any symptoms and with specific comments regarding daytime sleepiness. If there is any question about compliance with treatment, then a Maintenance of Wakefulness Test (MWT) will be required

The Examiner should defer to the AMCD or Region if:

- There is any question concerning the adequacy of therapy
- The applicant appears to be non-compliant with therapy
- The MWT is positive
- The applicant has developed some associated illness, such as right-sided heart failure

PROTOCOLS

The following 23 pages of the Guide for Aviation Medical Examiners lists the Disease Protocols, and course of action that should be taken by the Examiner as defined by aeromedical decision considerations.

PROTOCOL FOR CARDIOVASCULAR EVALUATION

A current cardiovascular evaluation must include:

- An assessment of personal and family medical history
- Clinical cardiac and general physical examination
- An assessment and statement regarding the applicant's medications, functional capacity, modifiable cardiovascular risk factors
- Motivation for any necessary change
- Prognosis for incapacitation
- Blood chemistries (fasting blood sugar, current blood lipid profile to include total cholesterol, HDL, LDL, and triglycerides)

PROTOCOL FOR EVALUATION OF CORONARY HEART DISEASE

Myocardial infarction, angina pectoris, or other evidence of coronary heart disease is covered in this protocol. Reports and test results relating to the diagnosis in accordance with the attached protocol must be obtained and forwarded to the AMCD.

A. Requirements are for consideration for any class of airman medical certification.

1. A 6-month recovery period must elapse after the event (angina, infarction, bypass surgery, angioplasty, or stenting) before consideration can be given for medical certification.

2. Hospital admission summary (history and physical), coronary catheterization report, and operative report regarding all cardiac events and procedures.

3. A current cardiovascular evaluation must include an assessment of personal and family medical history; a clinical cardiac and general physical examination; an assessment and statement regarding the applicant's medications, functional capacity, modifiable cardiovascular risk factors, motivation for any necessary change, prognosis for incapacitation; and blood chemistries (fasting blood sugar, current blood lipid profile to include total cholesterol, HDL, LDL, and triglycerides).

4. A maximal ECG treadmill stress test must be performed no sooner than 6-months post event. All stress testing should achieve 100 percent of maximal predicted heart rate unless medically contraindicated or prevented either by symptoms, conditioning, or concurrent use of medication, such as: B-blockers, calcium channel blockers (spec. diltiazem or verapamil), and/or digitalis preparations. With the consent of the attending physician, these medications should be discontinued for at least 48 hours prior to testing in order to attain maximal stress.

The blood pressure/pulse recordings at various stages and actual ECG tracings must be submitted. Tracings must include a rhythm strip, a full 12-lead ECG recorded at rest (supine and standing) and during hyperventilation while standing, one or more times during each stage of exercise, at the end of each stage, at peak exercise, and every minute during recovery for at least 5 minutes or until the tracings return to baseline level. The worksheet and interpretive report must be submitted. Computer-generated, sample cycle ECG tracings are unacceptable in lieu of the complete tracings.

A **SPECT** myocardial perfusion exercise stress test using technetium agents and/or thallium may be required for consideration for any class if clinically

indicated or the exercise stress test is abnormal by any of the usual parameters. The interpretive report and all **SPECT** images, preferably in black and white, must be submitted.

NOTE: If cardiac catheterization and/or coronary angiography have been performed, all reports and the actual films (if films are requested) must be submitted for review. Copies should be made of all films as a safeguard against loss. Films should be labeled with the name of the pilot and a return address.

B. Additional requirements for first or unlimited* second-class medical certification. The following should be accomplished no sooner than 6-months post event:

1. Post-event coronary angiography. The application may be considered without post-event angiography but certification for first- and unlimited second-class is unlikely without it.

2. A maximal thallium exercise stress test (See A. 4).

3. FAA Form 8500-20, Medical Exemption Petition (Operational Questionnaire). The applicant should indicate if a lower class medical certificate is acceptable in the event ineligible for class sought.

C. Certification. Applicants found qualified for an airman medical certificate will be required to provide periodic follow-up cardiovascular evaluations including maximal stress testing. Additional diagnostic testing modalities, including radionuclide studies, may be required if indicated.

No consideration will be given for an Authorization until all the required data have been received. The use of the applicant's full name, date of birth, and social security number on all correspondence and reports will aid the agency in locating the proper file.

It is the responsibility of each applicant to provide the medical information required to determine his/her eligibility for airman medical certification. In order to expedite processing, it is suggested that the information be sent in ONE MAILING, when possible, to:

Medical Appeals Section, AAM-313 OR
Aerospace Medical Certification Division
Federal Aviation Administration
Post Office Box 26080
Oklahoma City OK 73125-9914

Medical Appeals Section, AAM-313
Aerospace Medical Certification Division
Federal Aviation Administration
6700 S MacArthur Blvd., Room B-13
Oklahoma City OK 73169

D. Coronary Intervention (CABG, Rotoblation, Atherectomy, PTCA, and STENT).

In addition, the applicant must provide the operative or post procedure report. If a STENT was placed, the report must include make of STENT, implant location(s), length, and diameter of STENT.

*Limited second-class medical certificate refers to a second-class certificate with a functional limitation such as, "Not Valid for Carrying Passengers for Compensation or Hire", "Not Valid for Pilot in Command", "Valid Only When Serving as a Pilot Member of a Fully Qualified Two-Pilot Crew", "Limited to Flight Engineer Duties Only", etc.

PROTOCOL FOR HISTORY OF DIABETES MELLITUS I REQUIRING INSULIN

The FAA has established a policy that permits the special issuance medical certification of insulin-treated applicants for third-class medical certification. Consideration will be given only to those individuals who have been clinically stable on their current treatment regimen for a period of 6 months or more. Consideration is *not* being given for first- or second-class certification. Individuals certificated under this policy will be required to provide substantial documentation regarding their history of treatment, accidents related to their disease, and current medical status. If certificated, they will be required to adhere to stringent monitoring requirements and are prohibited from operating aircraft outside the United States. The following is a summary of the evaluation protocol and an outline of the conditions that the FAA will apply:

A. Initial Certification

1. The applicant must have had no recurrent (two or more) episodes of hypoglycemia in the past 5 years and none in the preceding 1 year which resulted in loss of consciousness, seizure, impaired cognitive function or requiring intervention by another party, or occurring without warning (hypoglycemia unawareness).
2. The applicant will be required to provide copies of all medical records as well as accident and incident records pertinent to their history of diabetes.
3. A report of a complete medical examination preferably by a physician who specializes in the treatment of diabetes will be required. The report must include, as a minimum:
 - a. Two measurements of glycosylated hemoglobin (total A1 or A1c concentration and the laboratory reference range), separated by at least 90 days. The most recent measurement must be no more than 90 days old.
 - b. Specific reference to the applicant's insulin dosages and diet.
 - c. Specific reference to the presence or absence of cerebrovascular, cardiovascular, or peripheral vascular disease or neuropathy.
 - d. Confirmation by an eye specialist of the absence of clinically significant eye disease.
 - e. Verification that the applicant has been educated in diabetes and its control and understands the actions that should be taken if complications,

especially hypoglycemia, should arise. The examining physician must also verify that the applicant has the ability and willingness to properly monitor and manage his or her diabetes.

f. If the applicant is age 40 or older, a report, with ECG tracings, of a maximal graded exercise stress test.

g. The applicant shall submit a statement from his/her treating physician, aviation medical examiner, or other knowledgeable person attesting to the applicant's dexterity and ability to determine blood glucose levels using a recording glucometer.

We recommend that the medical information and Application for Airman Medical Certificate or Airman Medical and Student Pilot Certificate (FAA Form 8500-8) be submitted prior to beginning or resuming flight instruction or training.

B. Subsequent Medical Certification

1. For documentation of diabetes management, the applicant will be required to carry and use a whole blood glucose measuring device with memory and must report to the FAA immediately any hypoglycemic incidents, any involvement in accidents that result in serious injury (whether or not related to hypoglycemia); and any evidence of loss of control of diabetes, change in treatment regimen, or significant diabetic complications. With any of these occurrences, the individual must cease flying until cleared by the FAA.

2. At 3-month intervals, the airman must be evaluated by the treating physician. This evaluation must include a general physical examination, review of the interval medical history, and the results of a test for glycosylated hemoglobin concentration. The physician must review the record of the airman's daily blood glucose measurements and comment on the results. The results of these quarterly evaluations must be accumulated and submitted annually unless there has been a change. (See No. 1 above - If there has been a change the individual must report the change(s) to the FAA and wait for an eligibility letter before resuming flight duties).

3. On an annual basis, the reports from the examining physician shall include confirmation by an eye specialist of the absence of significant eye disease.

4. At the first examination after age 40 and at 5-year intervals, the report, with ECG tracings, of a maximal graded exercise stress test must be included in consideration of continued medical certification.

C. Monitoring And Actions Required During Flight Operations

To ensure safe flight, the insulin using diabetic airman must carry during flight a recording glucometer, adequate supplies to obtain blood samples, and an amount of rapidly absorbable glucose, in 10 gm portions, appropriate to the planned duration of the flight. The following actions shall be taken in connection with flight operations:

1. One-half hour prior to flight he or she must measure the blood glucose concentration. If it is less than 100 mg/dl the individual must ingest an appropriate (not less than 10 gm) glucose snack and measure the glucose concentration one-half hour later. If the concentration is within 100 -- 300 mg/dl, flight operations may be undertaken. If less than 100, the process must be repeated; if over 300, the flight must be canceled.

2. One hour into the flight, at each successive hour of flight, and within one-half hour prior to landing, the airman shall measure his or her blood glucose concentration. If the concentration is less than 100 mg/dl, a 20 gm glucose snack shall be ingested. If the concentration is 100 -- 300 mg/dl, no action is required. If the concentration is greater than 300 mg/dl, the airman must land at the nearest suitable airport and may not resume flight until the glucose concentration can be maintained in the 100 - - 300 mg/dl range. In respect to determining blood glucose concentrations during flight, the airman must use judgment in deciding whether measuring concentrations or operational demands of the environment (e.g., adverse weather, etc.) should take priority. In cases where it is decided that operational demands take priority, the airman must ingest a 10 gm glucose snack and measure his or her blood glucose level 1 hour later. If measurement is not practical at that time, the airman must ingest a 20 gm glucose snack and land at the nearest suitable airport so that a determination of the blood glucose concentration may be made.

**PROTOCOL FOR HISTORY OF DIABETES MELLITUS II
REQUIRING ORAL DIABETIC MEDICATION(S)**

Applicants with a diagnosis of diabetes mellitus controlled by use of an oral medication may be considered by the FAA for Special Issuance of a Medical Certificate. Following initiation of oral medication treatment, a 60-day period must elapse prior to certification to assure stabilization, adequate control, and the absence of side effects or complications from the medication.

Initial certification decisions shall not be made by the Examiner. These cases will be deferred to the AMCD. Examiners may be delegated authority to make subsequent certification decisions, subject to further AMCD, review and consideration.

The initial determination of eligibility will be made on the basis of a report from the treating physician. For favorable consideration, the report must contain a statement regarding the medication used, dosage, the absence or presence of side effects and clinically significant hypoglycemic episodes, and an indication of satisfactory control of the diabetes. The results of an A1C hemoglobin determination within the past 30 days must be included. Note must also be made of the absence or presence of cardiovascular, neurological, renal, and/or ophthalmological disease. The presence of one or more of these associated diseases shall not be, per se, disqualifying, but the disease(s) shall be carefully evaluated to determine any added risk to aviation safety.

Recertification decisions will also be made on the basis of reports from the treating physician. The contents of the report must contain the same information required for initial certification and specifically reference the presence or absence of satisfactory control, any change in the dosage or type of oral hypoglycemic drug, and the presence or absence of complications or side effects from the medication. In the event of an adverse change in the applicant's diabetic status (poor control or complications or side effects from the medication), or the appearance of an associated systemic disease, an Examiner who has been given the authority to issue a certificate pending further review and consideration by the AMCD shall defer certification to the AMCD.

If, upon further review, it is decided that recertification is appropriate, the Examiner may again be given the authority to issue certificates (subject to the AMCD's review and consideration) based on data provided by the treating physician, including such information as may be required to assess the associated medical condition(s).

As a minimum, followup evaluations by the treating physician of the applicant's diabetic status shall be required annually for all classes.

Airmen who are diabetics should be counseled by Examiners regarding the significance of their disease and its possible complications. They should be informed of the potential for hypoglycemic reactions and cautioned to remain under close medical surveillance by their treating physicians. They should also be advised that should their oral hypoglycemic be changed or dosages modified, they should not perform airman duties until the treating physician has concluded that their conditions are under control and present no hazard to aviation safety. Airmen who use insulin for the treatment of their diabetics, may also be considered for special issuance for third-class medical certification.

**PROTOCOL FOR HISTORY OF DIABETES MELLITUS
CONTROLLED BY DIET AND EXERCISE**

A blood glucose determination is not a routine part of the FAA medical evaluation for any class of medical certificate. However, the examination does include a routine urinalysis. A medical history or clinical diagnosis of diabetes mellitus may be considered previously established when the diagnosis has been or clearly could be made because of supporting laboratory findings and/or clinical signs and symptoms. When an applicant with a history of diabetes is examined for the first time, the Examiner should explain the procedures involved and assist in obtaining prior records and current special testing.

Applicants with a diagnosis of diabetes mellitus controlled by diet alone are considered eligible for all classes of medical certificates under the medical standards, provided they have no evidence of associated disqualifying cardiovascular, neurological, renal, or ophthalmological disease. Specialized examinations need not be performed unless indicated by history or clinical findings. The Examiner must document these determinations on FAA Form 8500-8.

PROTOCOL FOR HISTORY OF HUMAN IMMUNODEFICIENCY VIRUS (HIV) RELATED CONDITIONS

Persons on antiretroviral medication will be considered only if the medication is approved by the U.S. Food and Drug Administration and is used in accordance with an acceptable drug therapy protocol. Acceptable protocols are cited in *Guidelines for the Use of Antiretroviral Agents in HIV-Infected Adults and Adolescents* developed by the Department of Health and Human Services Panel in Clinical Practices for Treatment of HIV Infection.

Application for special issuance must include reports of examination by a physician knowledgeable in the treatment of HIV-infected persons and a medical history emphasizing symptoms and treatment referable to the immune and neurologic systems. In addition, these reports must include a "viral load" determination by polymerase chain reaction (PCR), CD4+ lymphocyte count, a complete blood count, and the results of liver function tests. An assessment of cognitive function (preferably by *Cogscreen* or other test battery acceptable to the Federal Air Surgeon) must be submitted. Additional cognitive function tests may be required as indicated by results of the cognitive tests. At the time of initial application, viral load must not exceed 1,000 copies per milliliter of plasma, and cognitive testing must show no significant deficit(s) that would preclude the safe performance of airman duties.

Followup evaluations of applicants granted certification will include quarterly determinations of viral load by PCR, a CD4+ cell count, and the results of other laboratory and clinical tests deemed appropriate by the treating physician. These will be included in a written status report provided by the treating physician every 6 months. In addition, the results of cognitive function studies will be required at annual intervals for medical clearance or medical certification of ATCS's and first- and second-class applicants. Third-class applicants will be required to submit cognitive function studies every 2 years.

Adverse clinical findings, including significant changes in cognitive test results or an increased viral load exceeding 5,000 copies per milliliter shall constitute a basis for withdrawing medical certification.

Exceptions, if any, will be based on individual consideration by the Federal Air Surgeon.

PROTOCOL FOR EVALUATION OF HYPERTENSION

Initial: The Examiner may issue first-, second-, or third-class medical certificates to otherwise qualified airmen whose hypertension is adequately controlled with acceptable medications without significant adverse effects. In such cases, the Examiner shall:

1. Conduct an evaluation or, *at the applicant's option*, review the report of a current (within preceding 6 months) cardiovascular evaluation by the applicant's attending physician. This evaluation must include pertinent personal and family medical history, including an assessment of the risk factors for coronary heart disease, a clinical examination including at least three blood pressure readings, separated by at least 24 hours each, a resting ECG, and a report of fasting plasma glucose, cholesterol (LDL/HDL), triglycerides, potassium, and creatinine levels. A maximal electrocardiographic exercise stress test will be accomplished *if it is indicated by history or clinical findings*. Specific mention must be made of the medications used, their dosage, and the presence, absence, or history of adverse effects.
2. Summarize the results of this evaluation in Item 60 of the transmitted application and forward the appropriate documents to the AMCD.
3. Report the results of any additional tests or evaluations that have been accomplished.
4. If appropriate, state on FAA Form 8500-8 that the applicant's blood pressure is adequately controlled with acceptable medication, there are no known significant adverse effects, and no other cardiovascular, cerebrovascular, or arteriosclerotic disease is evident.
5. Defer certification if the person declines any of the recommended evaluations.

Medications:

1. Medications acceptable to the FAA for treatment of hypertension in airmen include all Food and Drug Administration (FDA) approved diuretics, alpha-adrenergic blocking agents, beta-adrenergic blocking agents, calcium channel blocking agents, angiotension converting enzyme (ACE inhibitors) agents, and direct vasodilators. Centrally acting agents (such as, reserpine, guanethidine, guanadrel, guanabenz, and methyldopa) are **not** usually acceptable to the FAA. Dosage levels should be the minimum necessary to obtain optimal clinical control and should not be modified to influence the certification decision.
2. The Examiner may submit for the Federal Air Surgeon's review requests for Authorization under the special issuance section of part 67 (14 CFR 67.401) in

cases in which these or other usually unacceptable medications are used. Specialty evaluations are required in such cases and must provide information on why the specific drug is required. The Examiner's own recommendation should be included. The Examiner must defer issuance of a medical certificate to any applicant whose hypertension is being treated with unacceptable medications.

Followup: Followup evaluations must include a current status report describing at least the medications used and their dosages, the adequacy of blood pressure control, the presence or absence of side effects, the presence or absence of end-organ complications and the results of any appropriate tests or studies. This evaluation can be performed by the AME if the AME can attest to the accuracy of the above information.

Hypertension follow-ups are required annually for first- and second-class medical certificate applicants and at the time of renewal for third-class certificate applicants.

Duration of Certificates: The duration of the certificate will be valid until the time of normal expiration, unless otherwise specified by the FAA.

PROTOCOL FOR MUSCULOSKELETAL EVALUATION

The Examiner should defer issuance.

An applicant with a history of musculoskeletal conditions must submit the following if consideration for medical certification is desired:

- Current status report
- Functional status
- Degree of impairment as measured by (strength, range of motion, pain)

NOTE: If the applicant is otherwise qualified, the FAA may issue a limited certificate. This certificate will permit the applicant to proceed with flight training until ready for a medical flight test. At that time, at the applicant's request, the FAA (usually the AMCD) will authorize the student pilot to take a medical flight test in conjunction with the regular flight test. The medical flight test and regular private pilot flight test are conducted by an FAA inspector. This affords the student an opportunity to demonstrate the ability to control the aircraft despite the handicap. The FAA inspector prepares a written report and indicates whether there is a safety problem. A medical certificate and statement of demonstrated ability (SODA), without the student limitation, may be provided to the inspector for issuance to the applicant, or the inspector may be required to send the report to the FAA medical officer who authorized the test.

When prostheses are used or additional control devices are installed in an aircraft to assist the amputee, those found qualified by special certification procedures will have their certificates limited to require that the devices (and, if necessary, even the specific aircraft) must always be used when exercising the privileges of the airman certificate.

PROTOCOL FOR PEPTIC ULCER

An applicant with a history of an active ulcer within the past 3-months or a bleeding ulcer within the past 6-months must provide evidence that the ulcer is healed if consideration for medical certification is desired.

Evidence of healing must be verified by a report from the attending physician that includes the following information:

- Confirmation that the applicant is free of symptoms
- Radiographic or endoscopic evidence that the ulcer has healed
- The name and dosage of medication(s) used for treatment and/or prevention, along with a statement describing side effects or removal

This information must be submitted to the AMCD. Under favorable circumstances, the FAA may issue a certificate with special requirements. For example, an applicant with a history of bleeding ulcer may be required to have the physician submit followup reports every 6-months for 1 year following initial certification.

The prophylactic use of medications including simple antacids, H-2 inhibitors or blockers, proton pump inhibitors, and/or sucralfates may not be disqualifying, if free from side effects.

An applicant with a history of gastric resection for ulcer may be favorably considered if free of sequelae.

PROTOCOL FOR RENAL TRANSPLANT

An applicant with a history of renal transplant must submit the following if consideration for medical certification is desired:

1. Hospital admission, operative report and discharge summary
2. Current status report including:
 - The etiology of the primary renal disease
 - History of hypertension or cardiac dysfunction
 - Sequela prior to transplant
 - A comment regarding rejection or graft versus host disease (GVHD)
 - Immunosuppressive therapy and side effects, if any
 - The results of the following laboratory results: CBC, BUN, creatinine, and electrolytes

PROTOCOL FOR EVALUATION OF IMPLANTED PACEMAKER

A 2-month recovery period shall elapse after the pacemaker implantation to allow for recovery and stabilization. Submit the following:

1. Copies of hospital/medical records pertaining to the requirement for the pacemaker, make of the generator and leads, model and serial number, admission/discharge summaries, operative report, and all ECG tracings.
2. Evaluation of pacemaker function to include description and documentation of underlying rate and rhythm with the pacer turned "off" or at its lowest setting (pacemaker dependency), programmed pacemaker parameters, surveillance record, and exclusion of myopotential inhibition and pacemaker induced hypotension (pacemaker syndrome), Powerpack data including beginning of life (BOL) and elective replacement indicator/end of life (ERI/EOL).
3. Readable samples of all electronic pacemaker surveillance records post surgery or over the past 6 months, whichever is longer. It must include a sample strip with pacemaker in free running mode and unless contraindicated, a sample strip with the pacemaker in magnetic mode.
4. An assessment and statement from a physician regarding general physical and cardiac examination to include symptoms or treatment referable to the cardiovascular system; your interim and current cardiac condition, functional capacity, medical history, and medications.
5. A report of current fasting blood sugar and a current blood lipid profile to include: total cholesterol, HDL, LDL, and triglycerides.
6. A current Holter monitor evaluation for at least 24-consecutive hours, to include select representative tracings.
7. A current M-mode, 2-dimensional echocardiogram with Doppler.
8. A current Maximal Graded Exercise Stress Test Requirements.

An electrocardiographic (ECG) treadmill stress test should achieve 100% of predicted maximal heart rate unless medically contraindicated or prevented either by symptoms or medications. Beta blockers and calcium channel blockers (spec. diltiazem and verapamil), or digitalis preparations should be discontinued for 48 hours prior to testing (if not contraindicated) in order to obtain maximum heart rate and only with consent of the treating physician. The worksheet with blood pressure/pulse recordings at various stages, interpretive report, and actual ECG tracings must be submitted. Tracings must include a rhythm strip, a full 12-lead ECG recorded at rest (supine and standing) and during hyperventilation while standing, one or more times during each stage of exercise, at the end of each stage, at peak exercise, and every minute during recovery for at least five

minutes or until the tracings return to baseline level. Computer generated, sample-cycle ECG tracings are unacceptable in lieu of the standard tracings. If submitted alone may result in deferment until this requirement is met.

9. It is the responsibility of each applicant to provide the medical information required to determine his/her eligibility for airman medical certification. A medical release form may help in obtaining the necessary information.

All information shall be forwarded in one mailing to:

Medical Appeals Branch, AAM-313 OR
Aerospace Medical Certification Division
Federal Aviation Administration
Post Office Box 26080
Oklahoma City OK 73125-9914

Medical Appeals Branch, AAM-313
Aerospace Medical Certification Division
Federal Aviation Administration
6700 S MacArthur Blvd., Room B-13
Oklahoma City OK 73169

No consideration can be given for special issuance until all the required data has been received.

The use of the airman's full name and date of birth on all correspondence and reports will aid the agency in locating the proper file.

PROTOCOL FOR THROMBOEMBOLIC DISEASE

An applicant with a history of thromboembolic disease must submit the following if consideration for medical certification is desired:

1. Hospital admission and discharge summary
2. Current status report including:
 - Detailed family history of thromboembolic disease
 - Neoplastic workup, if clinically indicated
 - PT/PTT
 - Protein S & C
 - Leiden Factor V
 - If still anticoagulated, submit all International Normalized Ratio (INR) from time of hospital discharge to present

PROTOCOL FOR VALVULOPLASTY

An applicant with a history of valvuloplasty must submit the following if consideration for medical certification is desired.

Valvuloplasty (surgical or balloon) for Mitral or Pulmonary Stenosis:

Initial:

- A 6-month period must elapse before consideration for any class medical certification
- Cardiovascular Examination (CVE)
- ECG
- Echocardiography and a symptom-limited GXT must show an acceptably increased exercise capacity without ischemia

Followup: Required annually.

- CVE
- Echocardiography
- ECG
- When indicated a 24-hour Holter and a GXT

Valvuloplasty (surgical or balloon) for Aortic Stenosis:

- A favorable determination is unlikely if this procedure was performed after age 16
- Same as the above initial requirements

PROTOCOL FOR CARDIAC VALVE REPLACEMENT

Applicants with tissue and mechanical valve replacements are considered after the following:

A 6-month recovery period shall elapse after the valve replacement to ensure recovery and stabilization. First- and second-class initial applicants are reviewed by the Federal Air Surgeon's cardiology panel.

1. Copies of hospital/medical records pertaining to the requirement for the valve to include make, model, serial number and size, admission/ discharge summaries, operative report, and pathology report.
2. A current evaluation from your attending physician regarding your use of Coumadin to confirm stability without complications, drug dose history and schedule, and International Normalized Ratio (INR) values accomplished at least monthly during the past 6-month period of observation.
3. A current report from your treating physician regarding the status of your cardiac valve replacement. This report should address your general cardiovascular condition as well as any symptoms of valve or heart failure and any related abnormal physical findings, and must reveal satisfactory recovery and cardiac function without evidence of embolic phenomena, significant arrhythmia, structural abnormality, or ischemic disease.
4. A current Holter monitor evaluation for at least 24-consecutive hours, to include select representative tracings.
5. Current M-mode, 2-dimensional echocardiogram with Doppler. Please submit the video resulting from this study.
6. A current maximal treadmill stress test. An ECG treadmill stress test should achieve 100 percent of predicted maximal heart rate unless medically contraindicated or prevented either by symptoms or medications. Beta blockers and calcium channel blockers (specifically diltiazem and verapamil), or digitalis preparations should be discontinued for 48 hours prior to testing (if not contraindicated) in order to obtain maximum heart rate and only with consent of the treating physician. The worksheet with blood pressure/pulse recordings at various stages, interpretive report, and copies of actual ECG tracings must be submitted. Tracings must include a rhythm strip, a full 12-lead ECG recorded at rest (supine and standing) and during hyperventilation while standing, one or more times during each stage of exercise, at the end of each stage, at peak exercise, and every minute during recovery for at least five minutes or until the tracings return to baseline level. Computer generated, sample-cycle ECG tracings are unacceptable in lieu of the standard tracings and if submitted alone may result in deferment until this requirement is met.